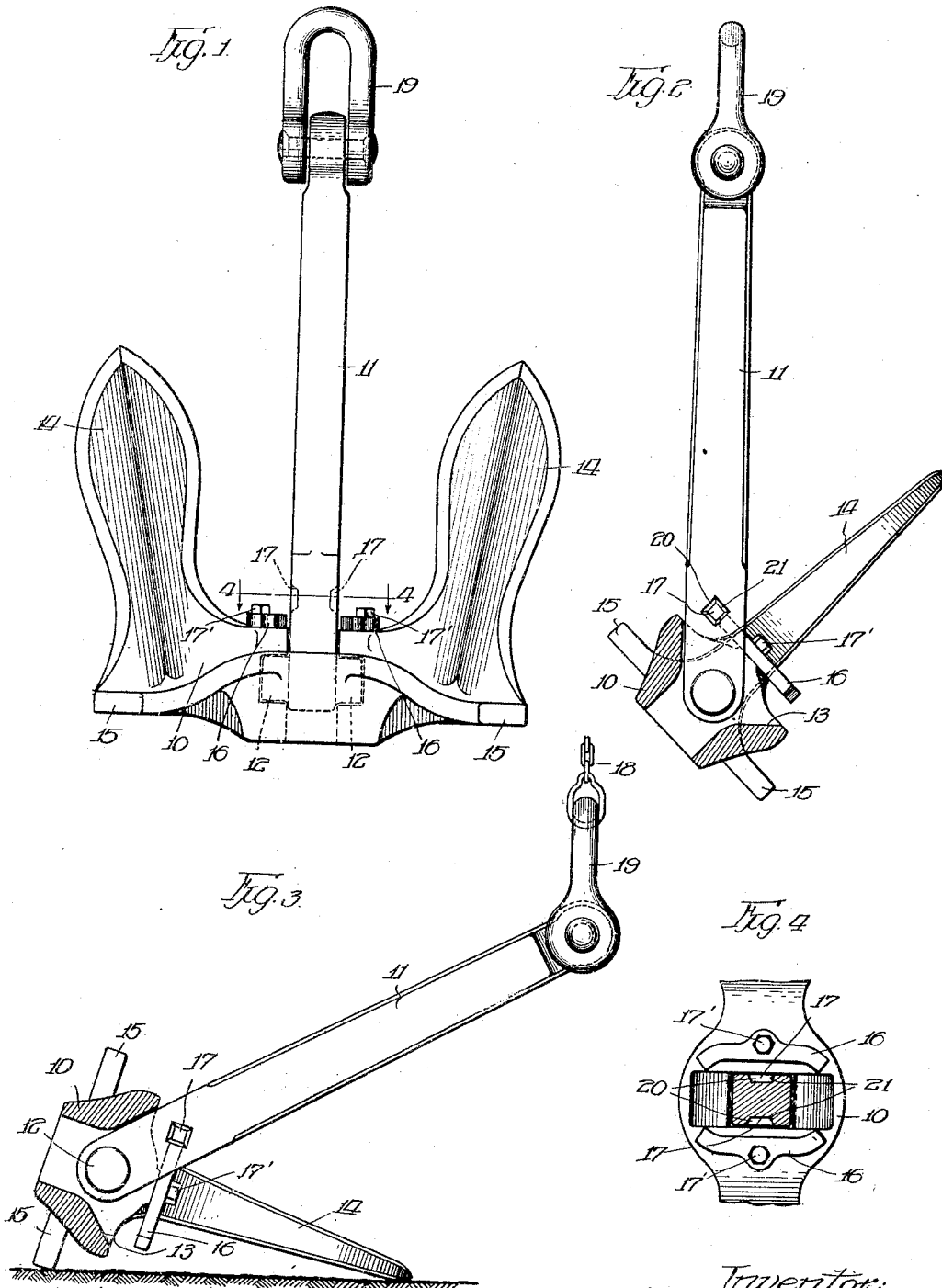


A. T. JONES.
ANCHOR MECHANISM.
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1,373,742.

Patented Apr. 5, 1921.



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UNITED STATES PATENT OFFICE.

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ANCHOR MECHANISM.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, AP TREVOR JONES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Anchor Mechanism, of which the following is a specification.

This invention relates to anchor mechanism.

Generally speaking, there are two types of anchors, one known as the stock anchor, in which the shank of the anchor has no relative movement with respect to its crown or head, and the other one known as the stockless anchor, in which the shank has a relative movement with respect to its crown or head. It is to the latter type of anchor that my invention has particular application.

The main advantages of the stockless type of anchor over the other type are the ease of stowing away the anchor on the ship, and primarily in that the stockless type of anchor has two flukes for simultaneously engaging and hooking into the bottom of the sea for holding firmly.

The one disadvantage of the stockless anchor is that the flukes thereof are a little slow in hooking into the bottom of the sea after reaching same.

Accordingly, one object of this invention is to overcome this disadvantageous feature in a simple and efficient manner.

Another object is to provide a stockless anchor adapted to meet all the requirements for successful use.

These and other objects are accomplished by means of the arrangement disclosed on the accompanying sheet of drawings, in which—

Figure 1 is a front elevation of an anchor embodying my invention;

Fig. 2 is a fragmentary side elevation of the same anchor, a portion of the head being shown in section showing the shank in a vertical position with the flukes at an angle of 45° with respect thereto, one of the two positions taken by the parts of the anchor as the latter is being lowered and raised;

Fig. 3 is a side elevation of the same anchor, a portion of the head being shown in section and showing the shank locked to the head of the anchor for causing a quick gripping action of the anchor when passed into engagement with the bottom of the sea, the

position shown being that which is assumed after the head of the anchor has reached the bottom of the sea and the shank having moved downwardly a certain predetermined amount from its vertical position; and,

Fig. 4 is a fragmentary top plan view of the anchor with the shank shown in section along the line 4—4 of Fig. 1.

The various novel features of the invention will be apparent from the following description and drawings and will be particularly pointed out in the appended claims.

Referring to the figures of the drawings, it will be noted that I have shown a stockless type of anchor including a head 10 and a shank 11, the latter being pivotally connected to the former by means of trunnions 12 extending laterally from the shank and cooperating with bearing portions within the head. The inclined walls 13 of the head form stops for limiting the relative movement between the shank 11 and head 10. Preferably the maximum relative movement between said parts is about 90°, there being a 45° swinging movement to either side of a central aligned position of the head and shank. The head 10 is provided with two flukes 14 which are the ground engaging or gripping members. The head is also provided with oppositely and laterally extending projections 15 at the base of the flukes to cause the flukes to assume a digging or gripping position when the head of the anchor rests upon the bottom of the sea, as shown in Fig. 3. However, as mentioned hereinabove, the stockless type of anchor is a little slow in digging into and gripping the bottom of the sea in spite of the inclination given to the flukes by the projections 15, as shown in Fig. 3. To overcome this disadvantageous feature and to cause a quicker gripping action of the flukes of the anchor, I have provided means whereby the shank of the anchor will become locked with respect to the head thereof at the proper point so that the weight of the shank, together with the weight of at least a portion of the chain, will act in a manner to increase the dipping or gripping action of the flukes of the anchor.

As shown in Fig. 3 of the drawings, the shank 11 of the anchor is locked to the head 10 thereof by the locking members 16, cooperating ends of the locking members being located within locking notches 17 in opposite

sides of the shank 11 for locking the shank and head in a given relative position for the purpose hereinabove mentioned. The locking members 16 preferably are pivotally connected to the head at opposite sides of the shank 11 near the base of the latter, studs 17 acting as the pivotal connections for said locking members 16. As shown in Figs. 1 and 4, the locking members 16 are in neutral unlocked position. However, when the head of the anchor, with its flukes, is swung to one side of the shank, as shown in Fig. 2 of the drawings, the upper ends of the locking members 16 swing inwardly into the locking notches 17 in the shank 11 because of the fact that most of the weight of the pivotal locking member 16 is eccentric with respect to the pivotal centers 17'. Accordingly, the head and shank automatically become locked to each other as soon as the flukes 14 assume a predetermined angle, which in this particular case is 45° with respect to the shank, and as the anchor continues to tip over from the position shown in Fig. 2, the locking connection between the parts in question is maintained, thereby causing the weight of the shank 11, chain 18, or at least a portion thereof, together with the shackle connection 19 to the shank, to act in a manner to cause the flukes to grip or hook into the bottom of the sea very quickly, this being especially true in view of the fact that the weights of the portions mentioned act through a relatively long lever arm. It will be understood that when the flukes 14 are moved from a vertical position to a position opposite to that shown in Fig. 2, the other ends of the locking member 16 will cooperate with the locking notches 17 locking the anchor head and shank in a

given relative position. The locking faces 20 and 21 of the slots 17 are formed at a sharper angle than the other two faces for the purpose of making the locking connection between the head and shank more secure than otherwise would be the case.

It is my intention to cover all modifications of the invention falling within the spirit and scope of the following claims.

I claim:

1. A stockless anchor including a head, a shank movably connected thereto having a locking notch therein, and a locking member carried by said head for cooperating with said locking notch for creating a gripping leverage locking the head and shank in a given relative position for causing a quick gripping action of the anchor.

2. An anchor including a head, a shank movably connected thereto having a locking notch therein, and a locking member carried by said head having two portions either of which may cooperate with said locking notch for locking the head and shank in two different relative positions for causing a quick gripping action of the anchor.

3. A stockless anchor including a head, a shank pivotally connected thereto having locking notches therein on opposite sides thereof, and pivotally mounted locking members carried by said head on opposite sides of said shank for cooperating with said locking notches for locking the head and shank in a given relative position for creating a gripping leverage causing a quick gripping action of the anchor.

Signed at Chicago, Illinois, this 24th day of April, 1920.

AP TREVOR JONES.