Sept. 28, 1954 L. EWBANK ET AL 2,690,153

FOLDING ANCHOR

Filed March 25, 1953

Fig. 1

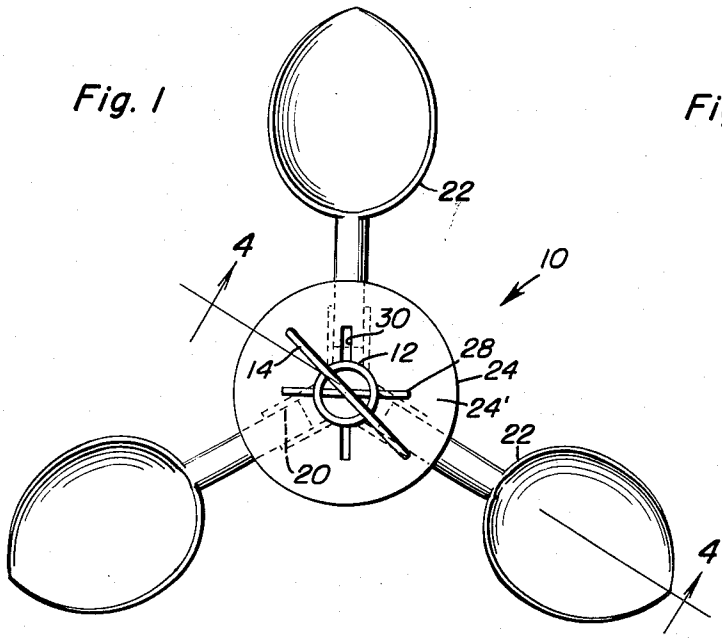


Fig. 3

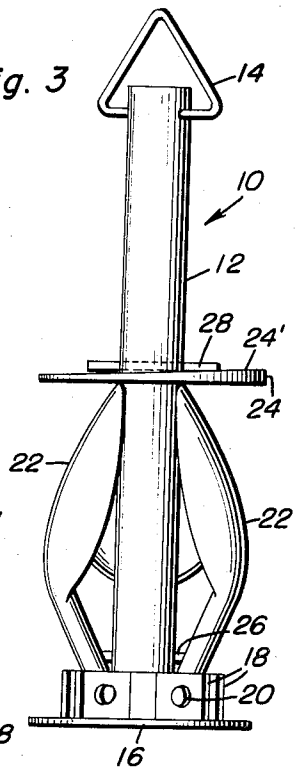


Fig. 2

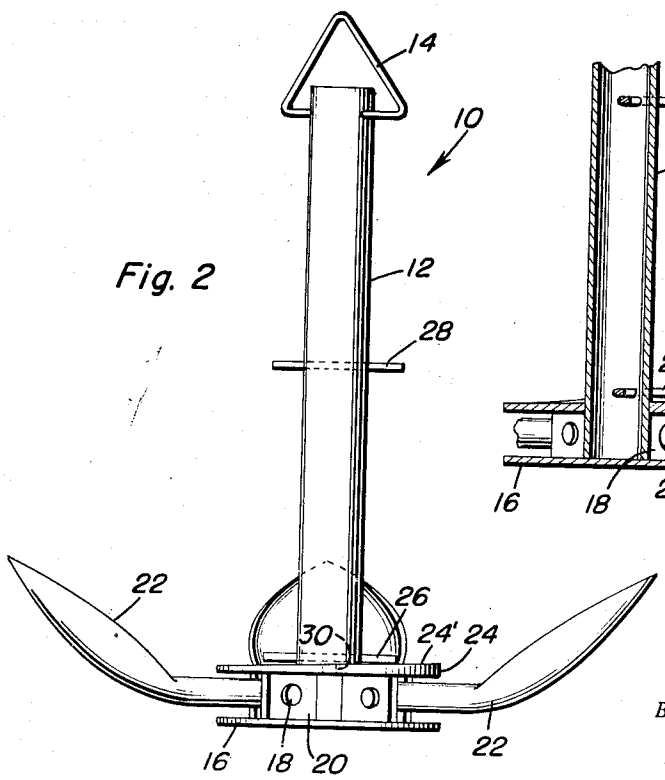
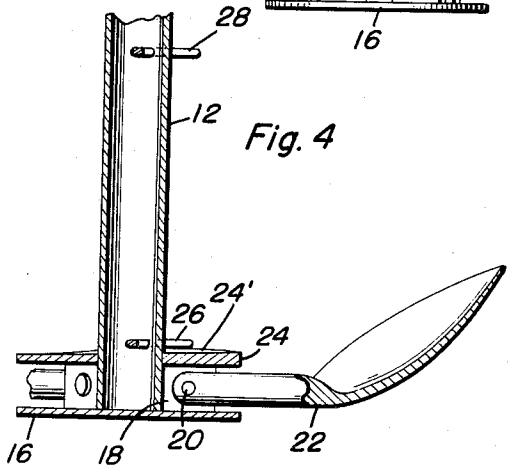


Fig. 4



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2,690,153

FOLDING ANCHOR

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1 Claim. (Cl. 114—208)

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This invention relates to new and useful improvements and structural refinements in boat anchors, and the principal object of the invention is to provide an anchor of the character herein described which may be quickly and easily folded or collapsed so that it occupies a very small amount of space when it is not in use.

An important feature of the invention resides in the provision of common means for locking the flukes of the anchor selectively in their operative and inoperative positions.

Some of the advantages of the invention reside in its simplicity of construction, in its space-saving characteristics and in its adaptability to economical manufacture.

With the above more important objects and features in view and such other objects and features as may become apparent as this specification proceeds, the invention consists essentially of the arrangement and construction of parts as illustrated in the accompanying drawings, in which:

Figure 1 is a top plan view of the invention;

Figure 2 is a side elevational view thereof in its operative position;

Figure 3 is a side elevational view, similar to that shown in Figure 2 but illustrating the invention in its folded position, and

Figure 4 is a fragmentary vertical sectional detail, taken substantially in the plane of the line 4—4 in Figure 1.

Like characters of reference are employed to designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawings in detail, the anchor is designated generally by the reference character 10 and embodies in its construction a tubular stem or shank 12 which is provided at its upper end with a suitable eye or loop 14 for attachment to a chain or cable (not shown).

A stationary disk or plate 16 is secured to the lower end of the shank 12 and has mounted thereon pairs of lugs 18 carrying horizontal pivot pins 20.

A plurality of spade-shaped flukes 22 are swingably mounted at the inner ends thereof on the respective pins 20, whereby the flukes may be swung from their outwardly extending operative positions as shown in Figure 1 to upwardly and inwardly folded inoperative positions as shown in Figure 3.

The flukes 22 are prevented from dropping below their operative positions by the stationary plate 16 and means is provided for locking the

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flukes selectively in their operative and inoperative positions, as will be presently described.

This means consists of a locking disk or plate 24 which is slidable vertically on the shank 12 and cooperates selectively with a pair of locking pins 26, 28 which are provided at vertically spaced points on the shank 12.

The plate 24 has a bevelled or cam-surface upper face 24' which may be wedged against either of the pins 26, 28 and the plate 24 is also provided with radial slots 30 (see Figure 1) through which the pins 26, 28 may pass when the plate 24 is slid along the shank 12.

When it is desired to lock the flukes 22 in their operative positions as shown in Figures 2 and 4, the plate 24 is slid downwardly on the shank 12 and after the pin 26 passes through the slots 30, the plate 24 is rotated so that the pin 26 is out of register with the slots 30 and becomes tightly wedged against the cam surface 24' of the plate while the plate 24 itself abuts the upper edges of the lugs 18. In this manner the flukes 22 will be prevented from swinging upwardly by the plate 24.

When it is desired to fold or collapse the anchor, the plate 24 is again rotated to its unlocked position and is drawn upwardly on the shank 12 after passing the pin 26 through the slots 30, until the plate 24 engages the locking pin 28 as shown in Figure 3. Actually, the plate 24 may be raised beyond the locking pin 28 and after the flukes 22 have been swung upwardly and inwardly as shown in Figure 3, the plate 24 is lowered under the pin 28 and is again rotated so that it frictionally engages the pin 28 and, at the same time, engages the upper ends of the flukes 22 so as to lock the flukes in their folded positions.

It is believed that the advantages and use of the invention will be clearly understood from the foregoing disclosure and accordingly, further description thereof at this point is deemed unnecessary.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

What is claimed as new is as follows:

A folding anchor comprising: a tubular shank, pairs of spaced, apertured ears radiating from the lower end portion of said shank, pins mounted in said pairs of ears, flukes having one end portion journaled on the pins for vertical swinging

movement to folded or unfolded position, a stationary disk fixed on the lower end of the shank for closing same and for limiting the swinging movement of the flukes toward unfolded position, spaced upper and lower pins mounted diametrically in the shank above the ears and projecting from said shank, and a cam disk rotatably and slidably mounted on the shank and operatively engageable beneath the upper pin for engagement with the free ends of the flukes for releasably securing same in folded position, said cam disk further being operatively engageable

beneath the lower pin and on the ears for engagement with the pivoted end portions of the flukes for releasably securing same in unfolded position, said cam disk having radial slots therein for the passage of the upper and lower pins.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,295,076	Sherman et al.	Feb. 18, 1919
1,632,529	Bauer	June 14, 1927