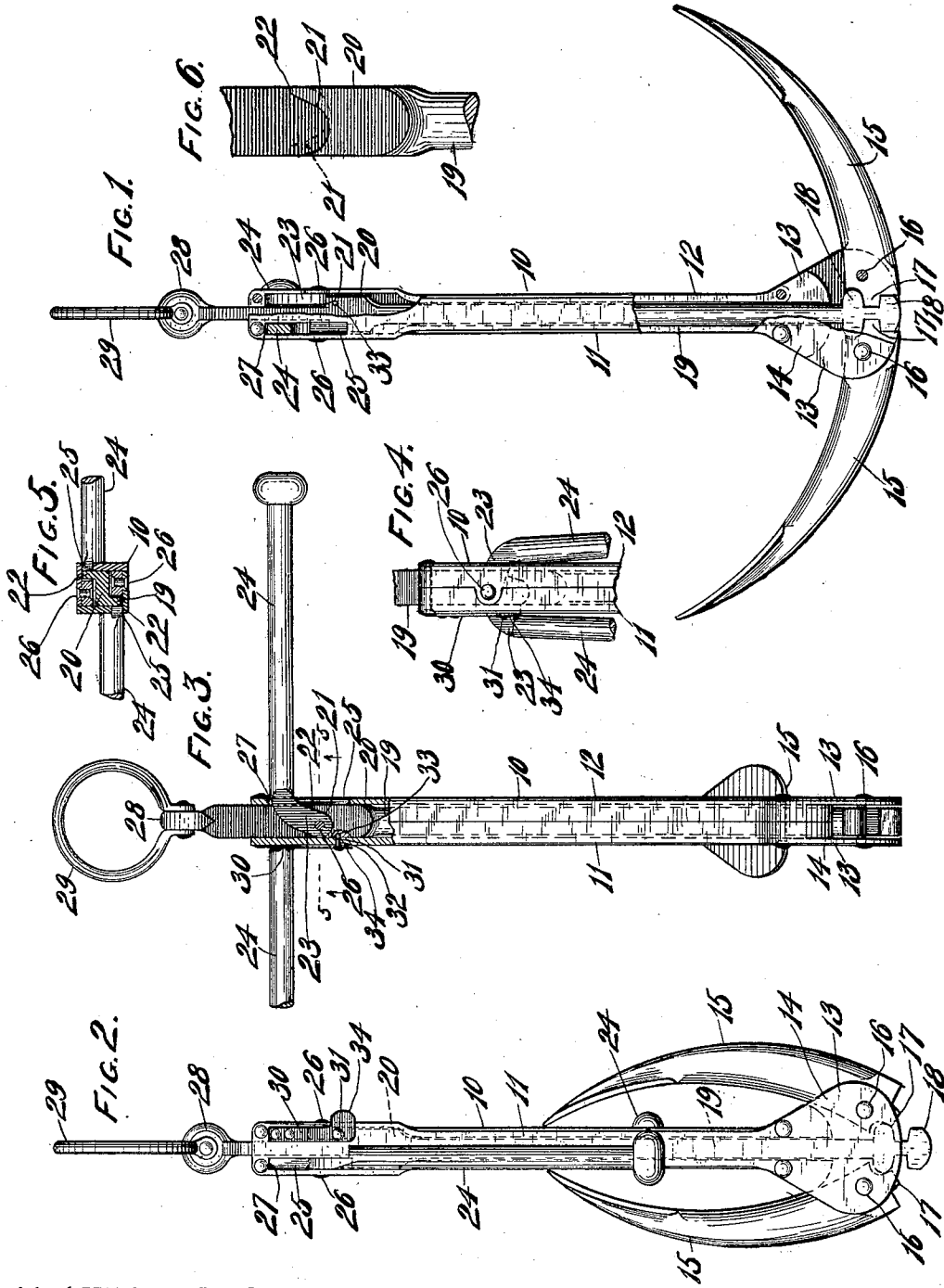


D. A. JONES.  
 FOLDING ANCHOR.  
 APPLICATION FILED MAY 26, 1910.

999,795.

Patented Aug. 8, 1911.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

DANIEL A. JONES, OF OSHKOSH, WISCONSIN.

FOLDING ANCHOR.

999,795.

Specification of Letters Patent.

Patented Aug. 8, 1911.

Application filed May 26, 1910. Serial No. 563,504.

*To all whom it may concern:*

Be it known that I, DANIEL A. JONES, residing in Oshkosh, in the county of Winnebago and State of Wisconsin, have invented new and useful Improvements in Folding Anchors, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

10 This invention relates to improvements in anchors and particularly to anchors of the folding type which are adapted to be folded when not in use in order to occupy but a minimum amount of space.

15 It is one of the objects of this invention to provide a folding anchor in which the stock and arms are adapted to fold into locked position against the side of the shank.

20 A further object of this invention is to provide a folding anchor in which the stock and arms are operatively connected together so that when the stock members are folded downwardly against the shank the arms will be caused to swing upwardly against the side of the shank and when in folded position the parts will be automatically locked in said position.

25 A further object of the invention is to provide a folding anchor in which the parts are automatically locked when swung into open position and the parts cannot be swung to closed position until they are released from the locking means.

30 A further object of the invention is to provide a folding anchor which is simple in construction and operation, easily assembled and inexpensive to manufacture.

35 With the above, and other objects in view, the invention consists of the anchor and its parts and combinations as set forth in the claims, and all equivalents thereof.

40 In the accompanying drawing in which the same reference characters indicate the same parts in all of the views: Figure 1 is a side view of an anchor in open position, embodying the improvements, parts broken away to show interior construction; Fig. 2 is a side view thereof in closed position; Fig. 3 is a view thereof taken at right angles to Fig. 1, parts broken away to show interior construction; Fig. 4 is a detail fragmentary view of the upper portion of the anchor showing the stock members in folded position; Fig. 5 is a sectional detailed view of the stock members taken on line 5-5 of

Fig. 3; and, Fig. 6 is a detail view of the upper end of the connecting rod.

Referring to the drawing the numeral 10 indicates the tubular shank of the anchor which is formed of two like parts 11 and 12 riveted together and provided with enlargements 13 at the lower ends thereof which form the throat 14 of the anchor. Arms 15 having flattened points or flukes formed on their outer ends have their inner ends positioned between the enlargements and are pivotally connected thereto by pivot pins 16. The inner ends of these arms are provided with segmental teeth 17 which mesh with rack teeth 18 formed on opposite sides of a connecting rod 19 positioned within the tubular shank 10. The teeth on the arms and on the connecting rod are sufficient in number to always intermesh in all positions of adjustment of the arms. The segmental teeth of the arms 15 are positioned eccentric to the axis of the arms so that when said arms are in their lowermost position the teeth will bind and lock and serve as stops to limit the further movement downwardly of the arms.

The upper portion 20 of the connecting rod is enlarged to form curved shoulders 21 on opposite sides of the connecting rod and these shoulders extend upwardly at diagonally opposite corners to form stock member engaging projections 22 which are adapted to engage the under edges of the angular portions 23 of stock members 24. The stock members, which form the stock of the anchor, extend into the tubular portion of the shank through elongated openings 25 provided in opposite sides of said shank and each member is pivotally connected to one of the walls of said shank by a pivot pin 26. The connecting rod 19 is positioned between the inner ends of the stock members with the projecting shoulders 21 of the rod engaging the lower edges of said members so that when the connecting rod is moved longitudinally with relation to the shank the stock members will be caused to swing on their pivotal connections. The upper portions 27 of the shank forming the upper boundary edges of the elongated openings serve as stops to limit the swing of the stock members to open position so that when in open position they will be substantially at right angles to the shank.

The upper end or head of the connecting 110

rod extends through the upper end of the shank and has an eyed portion 28 to which is connected a ring 29 for the attachment of a rope thereto. A flat spring member 30  
 5 connected to the shank and provided with a locking pin 31 which extends through an aperture 32 in the shank is adapted to lock the connecting rod to the shank when the parts are in open or closed position. The  
 10 locking pin 31 is positioned to engage the recess 33 provided in the connecting rod when the parts connected to said rod are in open position, and when in folded position the pin engages the curved shoulder 21. A  
 15 lip 34 extending from the side of the spring is provided for convenience in releasing the lock.

In operation the anchor is unfolded or  
 20 opened by swinging one of the arms downwardly to open position. This movement will cause the upward movement of the connecting rod by means of the toothed engagement of the arm to the rod and will swing the other arm downwardly to position.  
 25 Simultaneously with these movements the projections of the connecting rod will engage the lower edges of the stock members and swing them upwardly to open position. When the rod has reached its uppermost  
 30 position the locking pin will spring into the recess and lock the parts in open position. The position of the teeth on the inner ends of the arms with relation to the pivotal connections of the arms and the lower teeth  
 35 of the rod will serve to stop further movement of the arms downwardly even though a strain is exerted against the flukes and any pull of the rod upwardly will tend to bind the parts more securely together. In closing  
 40 or folding the anchor the spring is pressed to release the locking pin from the recess of the rod and either one of the arms or one of the stock members is swung against the shank, which movement will cause the  
 45 other parts to fold simultaneously and the locking pin passing over the curved shoulders of the rod will be held in locked position.

From the above description it will be seen  
 50 that the anchor is very simple in construction and operation and may be folded to occupy but a minimum amount of space.

What I claim as my invention is—

1. A folding anchor, comprising a shank  
 55 having arms and stock members pivotally connected thereto, and means operatively connected to the arms and to the stock members to cause the said arms and the said stock members to move to folded or unfolded  
 60 position and said means also extending through the upper end of said shank for connection with a cable.

2. A folding anchor, comprising a shank  
 65 having arms and stock members pivotally connected thereto, and a rod operatively

connected to the arms and pivotally connected to the stock members to cause said stock members to swing upwardly when one of the arms is swung downwardly and said rod also extending through the upper end  
 70 of said shank for connection with a cable.

3. A folding anchor, comprising a shank having arms and stock members pivotally connected thereto, and a rod having a toothed  
 75 connection with the arms and an engaging contact with the stock members for swinging said stock members upwardly and one of the arms downwardly when the other arm is swung downwardly and said rod also extending through the upper end of said shank  
 80 for connection with a cable.

4. A folding anchor, comprising a shank having arms and stock members pivotally connected thereto, a rod pivotally connected  
 85 to the arms and to the stock members to cause said stock members to swing upwardly when one of the arms is swung downwardly, and means for locking the stock members and the arms against movement when in unfolded position.  
 90

5. A folding anchor, comprising a shank having arms and stock members pivotally connected thereto, a rod having a toothed  
 95 connection with the arms and an engaging contact with the stock members for swinging said stock members upwardly and one of the arms downwardly when the other arm is swung downwardly, and a spring latch positioned to engage the rod to lock the arms and the stock members against movement  
 100 when in unfolded position.

6. A folding anchor, comprising a tubular shank, stock members pivotally connected to the shank, arms pivotally connected to the shank, and a rod having a toothed connection  
 105 with the arms and an abutting engagement with the stock members for swinging said stock members upwardly and one of the arms downwardly when the other arm is swung downwardly and said rod also extending through the upper end of said shank  
 110 for connection with a cable.

7. A folding anchor, comprising a tubular shank provided with an enlargement at its  
 115 lower end, stock members pivotally connected to the upper portion of the shank, toothed arms pivotally connected to the enlarged portion of the shank, and a rod positioned within the shank and provided with teeth on its lower end which mesh with  
 120 the teeth of the arms, the upper end of said rod having an engagement with the stock members.

8. A folding anchor, comprising a tubular shank provided with an enlargement at  
 125 its lower end, stock members pivotally connected to the upper portion of the shank, toothed arms pivotally connected to the enlarged portion of the shank, a rod positioned within the shank and provided with teeth  
 130

on its lower end which mesh with the teeth of the arms, the upper end of said rod having an engagement with the stock members, and means for locking the rod in adjusted position.

5 9. A folding anchor, comprising a tubular shank provided with an enlargement at its lower end and having elongated openings near its upper end positioned on opposite sides of the shank, stock members having angular inner ends extending through the elongated openings and into the tubular portion of the shank, said members being pivotally connected to the shank, arms pivotally connected to the enlarged portion of the shank and having teeth formed on their inner ends which are positioned eccentrically with relation to the pivotal connection of said arms, a rod slidably positioned within the shank, and provided with teeth on its lower end which mesh with the teeth of the arms, said rod also extending between the stock members and having an abutting engagement with the under portions thereof, and a ring connected to the upper end of the rod.

10. A folding anchor, comprising a tubular shank provided with an enlargement at its lower end and having elongated openings near its upper end positioned on opposite sides of the shank, stock members having angular inner ends extending through the elongated openings and into the tubular portion of the shank, said members being pivotally connected to the shank, arms pivotally connected to the enlarged portion of the shank and having teeth formed on their inner ends which are positioned eccentrically with relation to the pivotal connection of said arms, a rod slidably positioned within the shank and provided with teeth on

its lower end which mesh with the teeth of the arms, said rod also extending between the stock members and having an abutting engagement with the under portions thereof, and a spring provided with a pin for engaging the rod to hold the said rod in adjusted position.

11. A folding anchor, comprising a two part tubular shank provided with an enlargement at its lower end and having elongated openings near its upper end positioned on opposite sides of the shank, stock members having angular inner ends extending through the elongated openings and into the tubular portion of the shank, said members being pivotally and independently connected to opposite side walls of the shank, arms pivotally connected to the enlargement portion of the shank and having teeth formed on their inner ends which are positioned eccentrically with relation to the pivotal connection of said arms, a rod slidably positioned with the shank and extending through the ends thereof and provided with teeth on its lower end which mesh with the teeth of the arms, the said rod also extending between the inner ends of the stock members and having projections which abut against the under portions of the stock members, means provided on the upper end of the rod for connecting a rope thereto, and a spring pressed pin positioned to engage the rod and hold the said rod in adjusted position.

In testimony whereof, I affix my signature in presence of two witnesses.

DANIEL A. JONES.

Witnesses:

ANNA M. GRACE,  
AMELIA M. MILLER.