

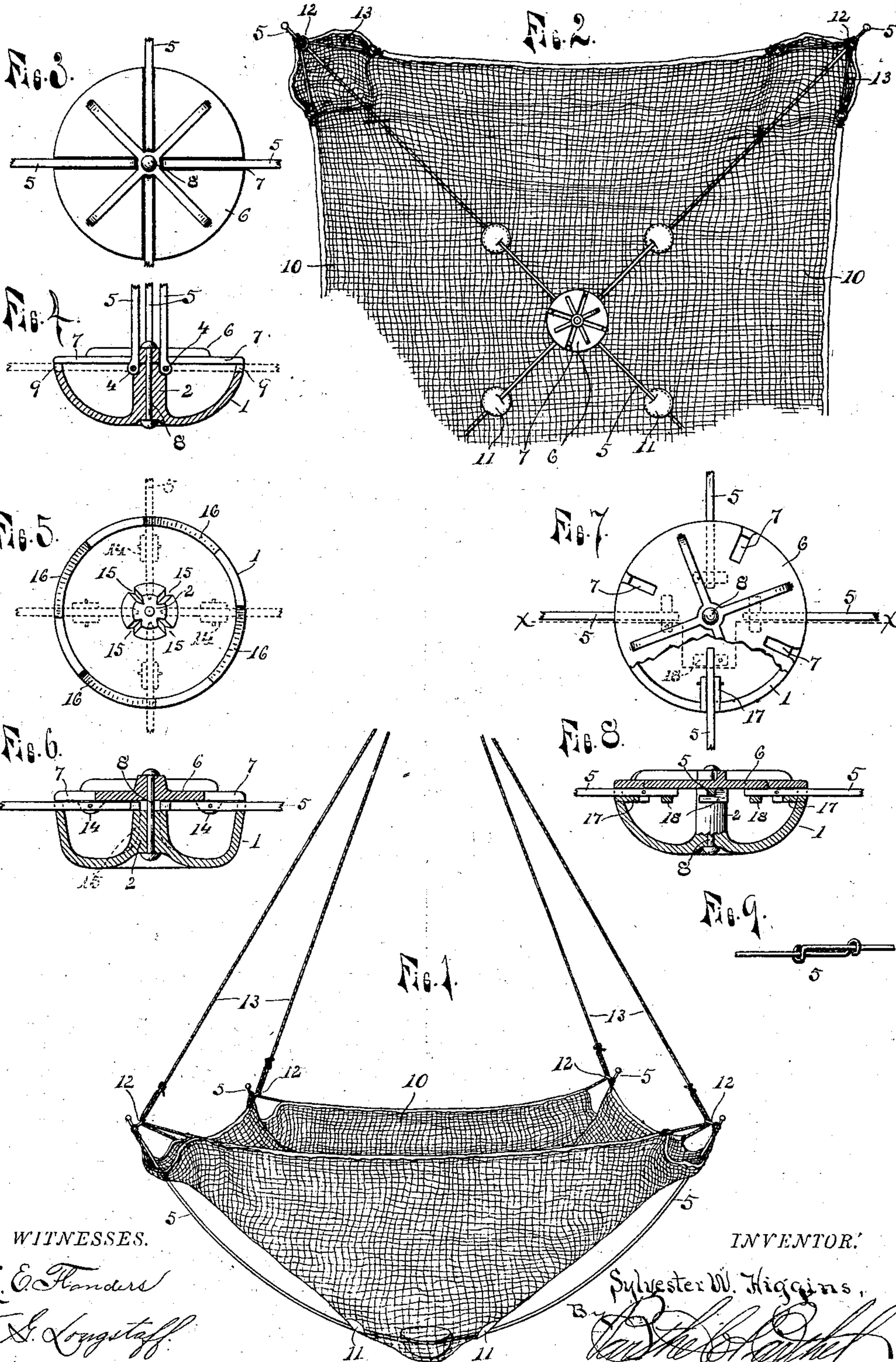
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PATENTED APR. 21, 1903.

S. W. HIGGINS.
MINNOW NET.

APPLICATION FILED JUNE 18, 1902.

NO MODEL.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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MINNOW-NET.

SPECIFICATION forming part of Letters Patent No. 725,962, dated April 21, 1903.

Application filed June 18, 1902. Serial No. 112,136. (No model.)

To all whom it may concern:

Be it known that I, SYLVESTER W. HIGGINS, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Minnow-Nets, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to improvements in minnow-nets; and its object is to provide a net so constructed that when raised in the water its edges will first be drawn tight upon the supporting-frame to which it is attached, thus tending to prevent the escape of the minnows over the sides and also providing for the use of a frame consisting of radial spring members which support the net at their outer ends and are bent when the net is raised, forming a bowl-shaped frame which engages the body of the net on the outer side and supports the same and at the same time lies perfectly flat when spread upon the ground.

25 It is also an object of this invention to so construct the frame that these spring arms or members may be folded up for convenience in carrying or may be locked in their extended position for use.

30 To this end the invention consists in providing a central member, forming the sinker for the net, and to which the spring members or arms are pivotally secured at one end and extend radially outward. The outer ends of these arms are provided with rings, and cords for raising the net are passed through these rings and attached to rings on the edge of the netting at a distance from the rings on the arms. A slotted plate pivoted to the top of said casting locks the arms in their horizontal or extended position and is adapted to be turned to bring its slots in line with said arms and allow them to be folded up together.

45 The invention also consists in the particular construction, arrangement, and combination of parts, all as hereinafter more fully described, and shown in the accompanying drawings, in which—

50 Figure 1 is a perspective view of a device embodying my invention; Fig. 2, a plan view

of a portion of the same. Fig. 3 is an enlarged plan view of the sinker; Fig. 4, a transverse vertical section of the same. Fig. 5 is a plan view of the lower cup of a modified form of sinker; Fig. 6, a transverse vertical section of the modification. Fig. 7 is a plan view of another form of sinker with a portion broken away to show the construction; Fig. 8, a section of the same on line *xx*, and Fig. 9 is a detail showing a modified form of supporting arm or rib.

As shown in the drawings, 1 is a cup-shaped casting convex and smooth on its outer or lower side and provided with a stud 2 in the axis of the cup, to the upper end of which stud are pivotally secured at 4 the spring-arms 5, forming the supporting-ribs of the net, and a cap-plate 6, provided with radial slots 7, corresponding in number to the number of arms 5, is secured over the cup by a rivet 8, upon which it is free to turn and which extends through an axial opening therefor in the stud, with its lower head engaging a depression in the convex surface of the casting 1 and its upper head engaging the upper side of the plate 6. In the upper edge of the cup or casting 1 are notches 9 to receive the arms, so that when they are in their horizontal or extended position they will be beneath the plate 6, which may then be turned slightly to throw the slots 7 out of line with the arms, and said arms will thus be locked in that position. Four or more of the supporting-arms may be provided, and these arms are made of spring-steel and may be made telescopic or in parts slidable one upon the other, as shown in Fig. 9, so that when the net is larger and the arms correspondingly long when the net is folded these arms may be made shorter by sliding one part upon the other and will take up less room.

To the outer ends of the arms 5 are secured the corners of the fabric or net 10, which is bound or otherwise strengthened at its edges, the arms being passed through the net, near the center thereof, said net being provided with reinforcing-piece 11 where the arms pass through to prevent tearing. Rings 12 are also secured to the outer ends of the arms, and through these rings are passed the cords

13, which are secured to the edges of the net a short distance from each corner, so that when the net is lifted by the cords they will slip through the rings, drawing the edges of the net tight and at the same time will bend the arms and form a bowl-shaped frame, which lies outside of the net except at the center and will not frighten the minnows out when the net is raised by reason of the arms raising in advance of the net. The tightening of the edge of the net tends to prevent the escape of the minnows and drives them toward the center thereof, and the lower side of the sinker being convex and smooth will not catch or injure the portion of the net beneath. The sinker also incloses the pivoted ends of the arms and prevents the net from being injured thereby either when extended or folded.

In the modified construction of sinker shown in Figs. 5 and 6 the arms 5 are pivoted between ears 14 on the plate 6 and at a short distance from their inner ends. The stud 2 in this construction is provided with grooves 15 and does not extend upward to engage the plate 6, but a space is left between said plate and stud, so that the inner ends of said arms will rest upon the upper end of the stud and the arms be prevented from turning on their pivots. The upper edge of the cup 1 is cut away at 16, so that when the arms are in their horizontal or locked position the plate 6 may be turned, carrying with it the arms, until the inner end of said arms are opposite the grooves in the stud, in which position the arms may be folded, their inner ends passing down the grooves.

Figs. 7 and 8 show a construction of sinker in which the arms 5 are pivoted at a short distance from their inner ends on supports or bearings 17, extending inward from the edge of the cup 1, and on the lower side of the plate 6 are the hooks 18, which are engaged with the inwardly-extending ends of the arms by turning the plate when the arms are in their extended position.

Having thus fully described my invention, what I claim is—

1. In a minnow-net, the combination of a frame consisting of radial arms, a net or fabric secured to the outer ends of said arms, rings on the ends of said arms, and cords attached to the edges of said fabric at a distance from its points of attachment to said arms and passed through said rings.

2. In a minnow-net, the combination of a frame consisting of radial spring-arms, a net or fabric secured to the outer ends of said arms, and cords for raising the net secured to the edges of said fabric and adapted to tighten said edges between the points of attachment to the arms and also adapted to bend said arms.

3. In a minnow-net, the combination with a net or fabric, of a frame consisting of radial

spring-arms to which the fabric is attached, and cords for raising the net attached to the outer ends of said arms whereby when the net is raised the arms are bent to form a bowl-shaped supporting-frame for the fabric.

4. In a minnow-net, the combination with a net or fabric, of a frame consisting of a casting forming a sinker for the net and radial spring-arms extending outward from said casting to which the fabric is attached at their outer ends, and cords attached to the outer ends of said arms for raising said net.

5. In a minnow-net, the combination with a net or fabric, of a frame consisting of a central member and radial members pivoted at one end on the central member, and to the opposite ends of which the fabric is attached, and means for locking said radial members in position when extended radially.

6. In a minnow-net, the combination with a net or fabric, of a central casting, arms pivoted at one end to said casting and extending radially therefrom, a plate having radial slots corresponding in number to the number of radial arms and pivoted to said casting to be turned to move its slots out of alignment with the arms and lock the arms in their extended position.

7. In a minnow-net, the combination of a frame consisting of radial arms, a net or fabric secured to the outer ends of said arms, rings on the ends of said arms, rings attached to the edges of said fabric adjacent to said arms and cords attached to said last-mentioned rings and passed through the aforementioned rings.

8. In a minnow-net, the combination of a frame consisting of a central cup-shaped casting convex on its lower side and spring-arms pivoted within the cup of the casting at one end and a net or fabric secured to the ends of said arms and lying upon the upper side thereof and beneath the casting.

9. In a minnow-net, the combination with a net or fabric, of a central member consisting of a casting and a plate pivotally secured to said casting, radial arms pivotally secured at one end to the central member and adapted to be locked in their radially-extended position by the turning of said plate.

10. In a minnow-net, the combination with a net or fabric, of a cup-shaped casting having notches in its edges and provided with an axial stud having an opening, arms pivoted at one end to the stud and adapted to extend radially therefrom and lie within the said notches, and a cap-plate provided with radial slots pivotally secured to the casting by a rivet passing through the opening in the stud.

11. In a minnow-net, the combination of a cup-shaped casting convex on its outer side and provided with notches in its edge and an axial stud, arms pivoted at one end upon said stud, a cap-plate provided with radial slots pivotally secured to said stud and covering

the cup, a net or fabric secured to the outer
ends of said arms and lying upon the upper
side of said arms throughout a portion of
their length and beneath the casting and ad-
5 jacent portions of the arms at its center, rings
secured to the outer ends of said arms, and
cords for raising the net passing through said
rings and secured to rings fastened to the
edges of the fabric at a short distance from
its places of attachment to said arms. 10
In testimony whereof I affix my signature
in presence of two witnesses.
SYLVESTER W. HIGGINS.
Witnesses:
OTTO F. BARTHEL,
LEWIS E. FLANDERS.