

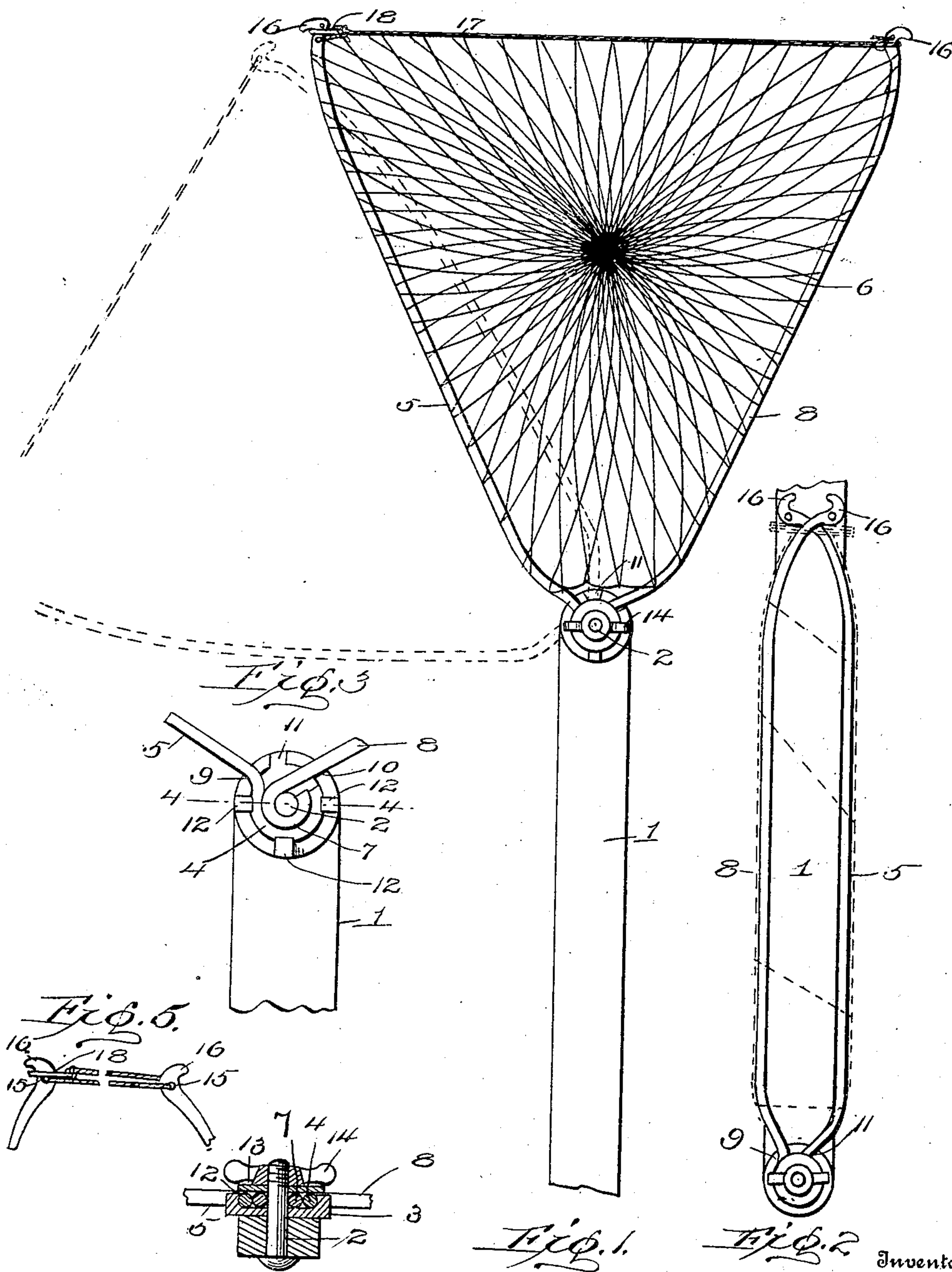
No. 886,281.

PATENTED APR. 28, 1908.

A. O. WARNER.

NET.

APPLICATION FILED AUG. 27, 1907.



Witnesses

Christie H. Tesler

Marion Fowler

Albert O. Warner

By Mason F. Lawrence,
Attorneys

UNITED STATES PATENT OFFICE.

ALBERT O. WARNER, OF DENVER, COLORADO.

NET.

No. 886,281.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed August 27, 1907. Serial No. 390,368.

To all whom it may concern:

Be it known that I, ALBERT O. WARNER, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Nets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in nets, and the object in view is the facilitating in adjustment of the net proper at various angles relative to the handle.

A further object in view is the provision of means for facilitating the collapsing and folding of the net for reducing the size thereof to a minimum for transportation purposes.

With these and further objects in view, the invention comprises certain novel constructions, combinations and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawings:—Figure 1 is a plan view of a net in an open condition embodying the features of the present invention, one position of angularity relative to the handle being indicated in dotted lines. Fig. 2 is a similar view of the same in the collapsed or folded condition, the fabric of the net being indicated in dotted lines. Fig. 3 is an enlarged, detail plan view of the connection between the net frame and the handle, the wing nut and washer being omitted. Fig. 4 is a transverse, vertical section taken on the plane indicated by line 4, 4 of Fig. 3. Fig. 5 is an enlarged, detail view of the outer ends of the side bars of the net frame indicating in detail the preferred form of connection therebetween.

Referring to the drawing by numerals, 1 indicates any ordinary handle penetrated at one end by a pivot pin or bolt 2 surrounded at one side of the handle by an annular casing 3. The casing 3 is made washer-like, and that wall thereof which rests against the handle 1 fits snugly about the pin or bolt 2. Lying within the casing 3 and arranged concentric to the walls thereof is the bent end 4 of one of the side bars 5 of the frame of the net proper 6. Snugly fitting about the bolt 2 is the bent end 7 of the other side bar 8 of the frame of the net 6, the bent end 7 being concentric to the circular wall of the casing 3 and snugly fitting between the pin or bolt 2 and the bent end 4 of the bar 5. The circular

wall of the casing 3 is formed with notches 9 and 10 through which the bars 5 and 8 respectively extend when in the expanded condition, the said circular wall being formed with a notch 11 for accommodating the bar 8 when the parts are in the collapsed condition as indicated in Fig. 2. It is to be noted that the bent ends 4 and 7 constitute eyes which substantially surround the bolt 2 and retain the parts in their proper relation, the eye 7 permitting the rod 8 to be swung about the bolt 2 as a pivot. Obviously the rod 8 must be elevated out of the notch 10 before moving to the notch 11, and of course, must be elevated out of the notch 11 before being moved back to the notch 10. The eye 4 is retained against movement independently of the casing 3 by overhanging lugs 12, 12 extending inwardly from the vertical walls of the casing 3. In order to prevent accidental escape of the rod 8 from either of the notches into which it has been placed, a washer 13 is placed above the upper edge of the vertical walls of the casing 3 and is pressed down upon the eyes 4 and 7 by a winged nut 14 threaded onto the end of the bolt 2.

The outer end of each of the bars 5 and 8 is provided with an eye 15 and a hook 16 turned outwardly. A cord 17 serves as a third or completing section of the net frame, and for facilitating the connecting and disconnecting of said cord, the cord is preferably secured to one of the eyes 15 and passed across through the opposite eye and at its free end is provided with a ring 18 adapted to fit over the hook 16 of that side member of the frame whose eye is engaged by the end of the cord 17. This interlacing greatly facilitates the collapsing of the net or the opening of the same.

Assuming the net to be in the condition seen in Fig. 1, to collapse the net, it is only necessary to engage the ring 18 from the hook 16 and release the same, whereupon the side bars 5 and 8 spring apart as they have been held under tension by the cord 17. The releasing of the cord 17 thus releases the tension upon the side walls of the notches 9 and 10 and the wing nut 14 may then be loosened for permitting the washer 13 to be moved laterally away from the casing 3 until the rod 8 may escape from the notch 10 and be moved over into the notch 11.

After the rod 8 has been placed in the notch 11 the wing nut 14 is again tightened up and the rods 5 and 8 are swung around

over the handle to the position indicated in Fig. 2, the casing 3 revolving on the bolt 2. As soon as the bars 5 and 8 have been positioned as indicated in Fig. 2, the cord 17 may be wrapped about the handle 1, and the ends of the rods 5 and 8, and the net 6 may then be wrapped about the handle and rods as indicated in dotted lines in Fig. 2. This makes a very compact bundle that is sufficiently small to be inserted in the pocket if desired, or may be otherwise carried with facility. When it is desired to reopen the net, it is only necessary to unwrap the net 6 and cord 17 and swing the parts around on the pivot 2 and then loosen the wing nut 14 and move the rod 8 from the notch 11 to the notch 10. When the parts are in this position, the free ends of the rods 5 and 8 are at a greater distance apart than one-half the length of the cord 17, so that when the cord 17 is passed about opposite hook 16 from that to whose contiguous eye the end of the cord is connected and the ring 18 is passed over the end of the opposite hook 16 that is the hook corresponding to the eye engaged by the cord, the free ends of the rods 5 and 8 will be nearer together than in their free positions, and therefore the cord 17 will be under spring tension, which results in the production of a straight edge along the length of the cord.

As soon as the cord 17 has been positioned, the net is in condition for operation, the cord 17 of course sustaining its respective portion of the edge of the net. It is obvious of course that the present improved net is well adapted for landing purposes or for the catching of shrimp or other bait, as well as for the use by scientists for catching specimens. The pivotal mounting of the net frame enables the net to be positioned at any angle either to the right or left of the handle, so that the net may be used by a person in a boat on either side of the boat with facility and may be positioned at whatever angle may be required relative to the handle to obtain the best results according to the particular work in hand.

What I claim is:—

1. A net, comprising a handle, an annular casing revolubly mounted thereon, a pair of rods extending into said casing, one of the rods being movably mounted and movable toward and away from the other rod within the casing, means for securing said rods in a position spaced apart, means connecting the free ends of said rods, and a net proper sustained by the rods and said connecting means.

2. A net, comprising a handle, an annular casing revolubly mounted thereon, and formed with notches in its walls, a pair of rods having their ends extending into said casing through some of said notches, one of said rods being adapted to be moved from

one of the notches to another for being adjusted toward or away from the other rod, means for securing the rods against movement while in any given notches, means connecting the free ends of the rods, and a net proper supported by said rods and connecting means.

3. A net, comprising a handle, an annular casing revolubly connected thereto, a rod extending into said casing and having an eye formed therein, means for preventing removal of the eye from the casing, the casing being formed with notches spaced apart and spaced from the said rod, a second rod extending through one of the notches and formed with an eye arranged within the eye of the first mentioned rod and concentric thereto, so as to be adapted to be revolved therein, the rod being adapted to be swung from one of the notches to the other when free, means for at times preventing the second mentioned rod from escaping from its given notch, means for connecting the free ends of the rods when the rods are spaced apart, and a net proper suspended from said rods and connecting means.

4. A net, comprising a handle, an annular casing revolubly mounted thereon, a pin extending through said handle and casing, rods extending into said casing and formed with eyes surrounding said pin, one of said rods being movable toward and away from the other, means connected with the pin for retaining said rod against movement, means for connecting the free ends of said rods, and a net proper supported by said rod and connecting means.

5. A net, comprising a handle, a casing revolubly mounted thereon, a pin extending through said handle and casing, a pair of rods extending into said casing, one of said rods being movable toward and away from the other, a nut engaging said pin and adapted to be threaded thereon for clamping the movable rod against movement, means for connecting the free ends of said rods together, and a net proper supported by said rods and connecting means.

6. A net, comprising a handle, a casing revolubly connected thereto, a pair of rods extending into said handle, one of said rods being movable with respect to the other, means for locking said rods in a position spaced apart, the outer end of one of said rods being formed with a hook and an eye, a cord connected to the eye and engaging the outer end of the opposite rod, a ring secured to the free end of said cord and positioned over said hook, and a net proper supported by said rods and cord.

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

ALBERT O. WARNER.

Witnesses:

JOHN L. FLETCHER,
EDWARD T. FENWICK.