No. 778,818. PATENTED DEC. 27, 1904.

A. YANCEY.

SEINING.

APPLICATION FILED APR. 7, 1904.

4 SHEETS—SHEET 1.

Fig. 1.

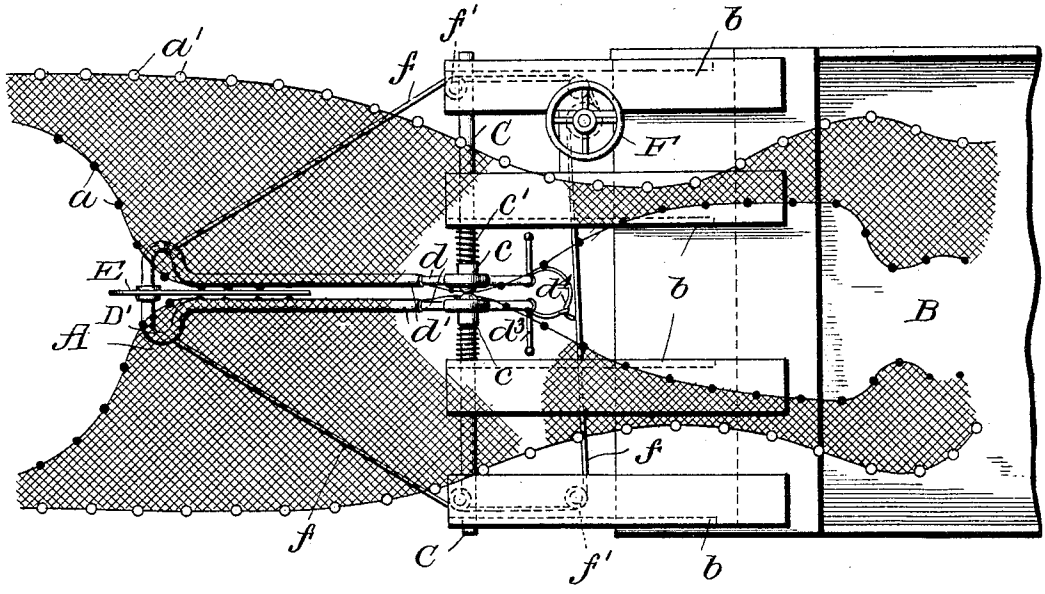
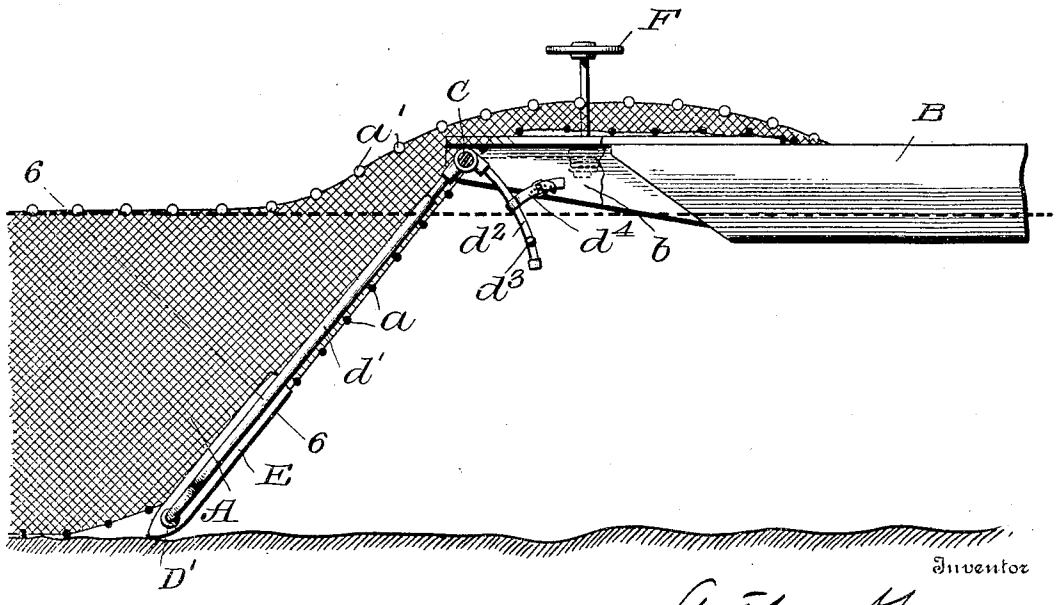


Fig. 2.



Witnesses

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4 SHEETS—SHEET 2.

Fig. 3.

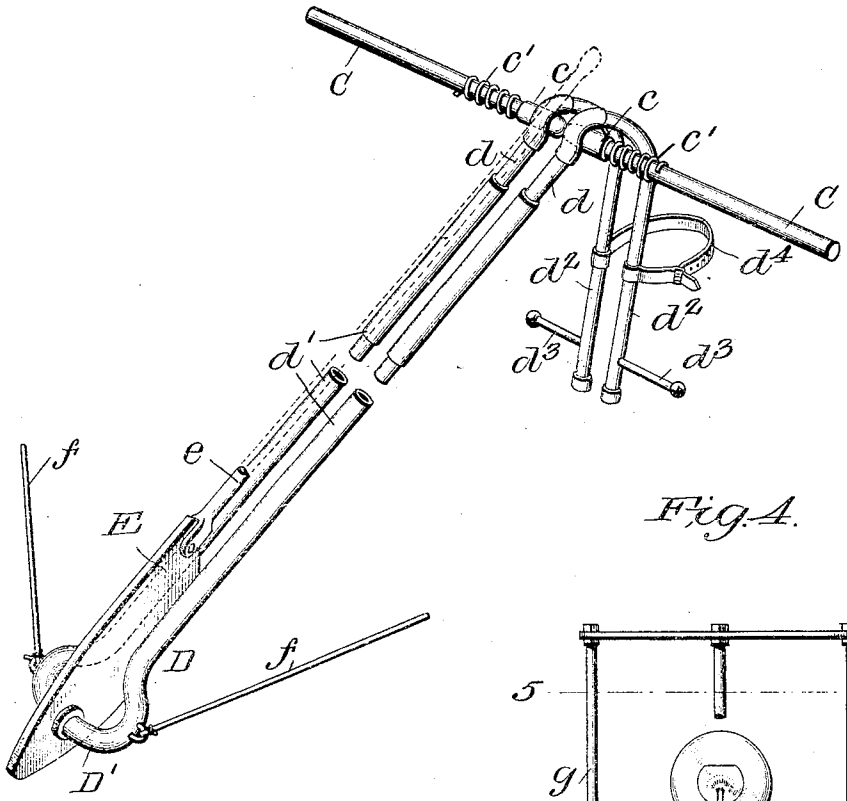


Fig. 4.

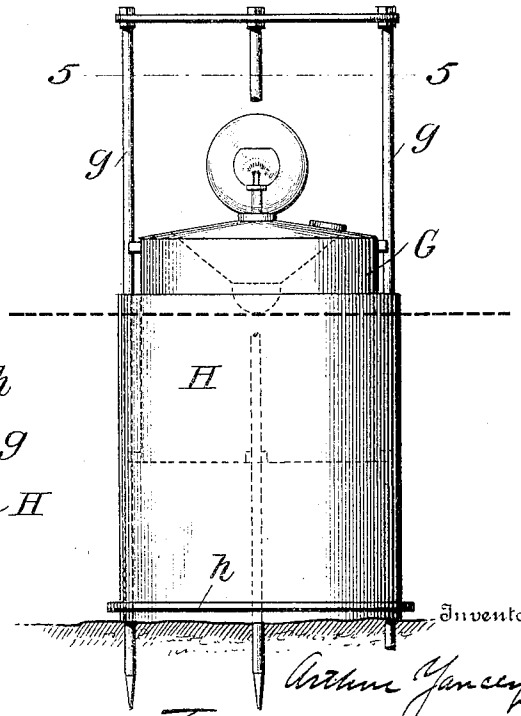
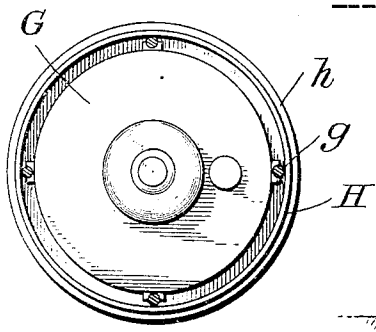


Fig. 5.



Witnesses

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4 SHEETS—SHEET 3.

Fig. 6.

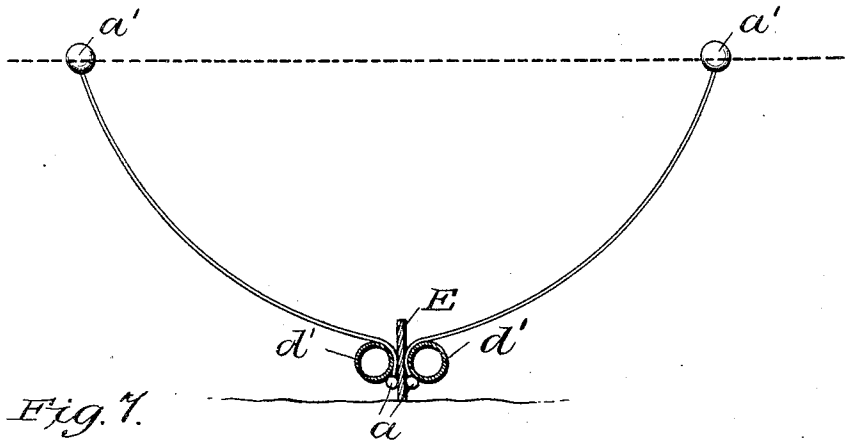


Fig. 7.

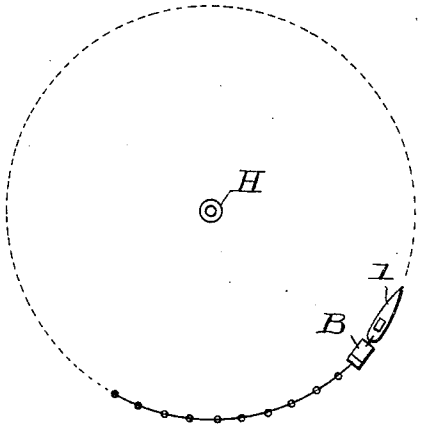


Fig. 8.

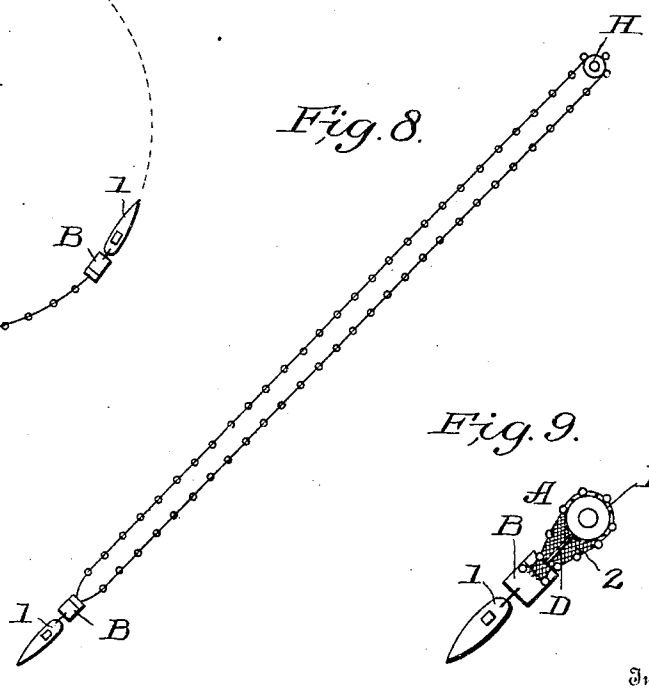


Fig. 9.

Witnesses

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4 SHEETS—SHEET 4.

Fig. 10.

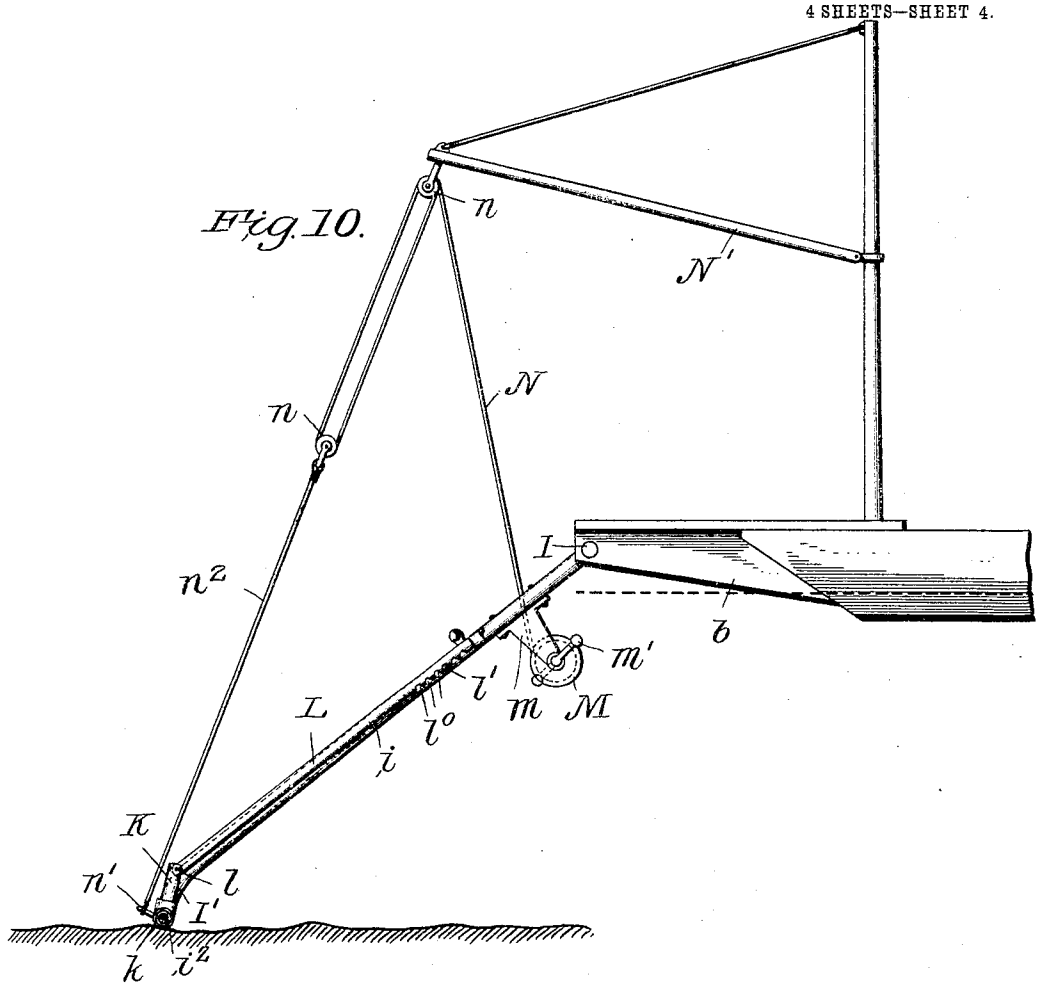
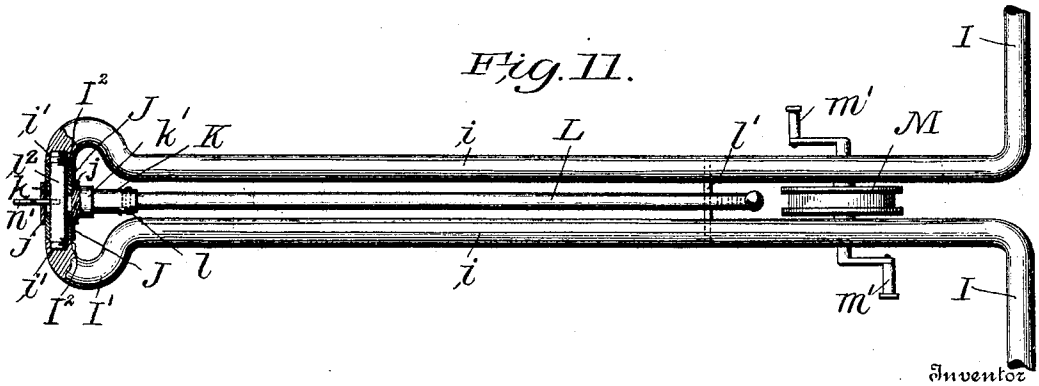


Fig. 11.



Witnesses

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No. 778,818. Patented December 27, 1904.

UNITED STATES PATENT OFFICE.

ARTHUR YANCEY, OF DERMOTT, ARKANSAS.

SEINING.

SPECIFICATION forming part of Letters Patent No. 778,818, dated December 27, 1904.

Application filed April 7, 1904. Serial No. 202,102.

To all whom it may concern:

Be it known that I, ARTHUR YANCEY, a citizen of the United States, residing at Dermott, in the county of Chicot and State of Arkansas, have invented certain new and useful Improvements in Seining; 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 methods for setting and hauling seines and improved apparatus for closing the bottom of the seine while being hauled.

The invention is particularly applicable for use in connection with catching shrimp, but might be equally as well used for catching other fish. In referring to "shrimp," therefore, in the following specification I simply do so as a matter of brevity, it being understood that the term is intended to embrace other classes of fish.

Broadly speaking my invention consists in the particular manner of setting the seine for corralling or imprisoning the shrimp and hauling the seine, means being provided for guiding and bringing the lead-lines together for closing the bottom of the seine while being hauled.

To more fully describe my invention, reference is had to the accompanying drawings, illustrating the same, in which like characters designate the same parts in the several views, and in which—

Figure 1 is a plan view of a float or tender provided with my improved closing apparatus, the seine being shown in its longitudinal stretched position ready for hauling. Fig. 2 is a side elevation of the same, parts being broken away and the right-hand side of the seine only shown for clearer illustration. Fig. 3 is a perspective view of the closing device and the means for supporting same. Fig. 4 is an elevation of the floating light and its anchored guide, showing the inclosing drum therearound. Fig. 5 is a sectional plan view of the same on the line 5 5 of Fig. 4. Fig. 6 is a transverse sectional view through the guiding and closing device on the line 6 6 of Fig. 2, showing the position of the sides of the seine at the inner end thereof while being hauled. Fig. 7 is a diagrammatic view illustrating the preferred method of corralling the shrimp herded by the beacon-light. Fig. 8 is a diagrammatic view illustrating the method of stretching out the seine prior to beginning the hauling and closing operation. Fig. 9 is a similar view showing the tender drawn up to the beacon-light or anchor, the seine having been hauled up on the tender and the shrimp collected in the small area between the tender and anchor. Fig. 10 is a side elevation of a modified arrangement of the closing mechanism and the manner of mounting and operating same, one of the parallel tubes being broken away; and Fig. 11 is a plan view of a portion of Fig. 10.

A designates the seine provided with the usual weighted edge comprising the lead-lines a and a floating edge provided with the usual floats a'.

B is a tender or floating support provided with the projecting arms b.

C designates a pair of rock-shafts loosely journaled in the arms b and provided at their inner ends with the rounded caps c. The inner capped ends of these shafts are adapted to be normally held in contact by the coil-springs c', interposed between the same and the adjacent supporting-arm b.

Mounted on the inner end of the shafts C are the depending tubes d, telescoping in the tubes d', for regulating the depth of the closing device D, the other ends of the tubes d extending over and around the shafts C and depending at d^2 a suitable distance, the said tube-sections d^2 being provided with the foot-rests d^3 and fastening-strap d^4 for a purpose hereinafter described.

The closing device D comprises, substantially, an enlarged looped continuation D′ of the tubes d'. Pivotally supported on the transverse arm of the looped portion D′ and extending longitudinally between the parallel tubes d' is the guiding-plate E, coöperating with the tubes d' for guiding the lead-lines a on opposite sides of the plate E, behind the tubes d', the spaces between the plate E and the tube d' being of a lesser width than the size of the weights on the lead-line. e is an

operating rod or handle for swinging the plate E around its pivotal axis, also acting as a continuation of the plate E for guiding the seine in the upper end of the parallel tubes.

The lower telescoping tubes d' should preferably be constructed of some light antirust metal and brightly polished to reduce the friction in the passage of the seine and lead-lines to a minimum, and in order to telescope the tubes for accommodating the device to the varying depths of water I provide any suitable means. For the purpose of illustration I have shown the cords or chains f reeving around pulleys f' and connected to a drum on a vertical shaft carried by the float.

In actual practice I prefer to use a suitable form of illuminating means for herding the shrimp, and for the purpose of illustration I have shown in Figs. 4 and 5 a floating acetylene-gas tank G, held in place by the upright guide-rods g, adapted to be driven in the bed of the water and securely anchored. The tank G is provided with a suitable form of burner and protecting-globes for the flame. H is a sleeve or drum of sufficient diameter to inclose the gas-tank and its support and of a length as great as the depth of the seine. The object of this drum will be referred to in the description of the operation of the device.

In Figs. 10 and 11 are shown the forwardly-depending tubes as comprising the parallel tubes i, formed integral with the rock-shafts I and the enlarged looped portion I', the transverse arm of the enlarged looped portion I' being broken away centrally and provided with screw-threaded sockets i' for the reception of the screw-threaded pin i^2. Disposed in the broken-away portion of the loop I' and revolubly mounted on the pin i^2 are the spaced sleeves J, screw-threaded externally on their inner ends, as at j, to engage the internal screw-threads of the transverse member k of a T-joint, fitted within the nipple k' of which is a short tube K, cut away at its rear upper portion to receive the lower end of a rod L, pivoted thereto, as at l, and extending longitudinally between the parallel tubes i and performing the function of the guide-plate E of the previously-described construction. The upper end of this rod L is notched, as at l^0, for adjustably connecting this end to a transverse pin l', extending between the tubes i, which permits of the adjustability of the short tube K in a vertical plane, the short tube being pivotally connected to the lower end of this rod, as before described. It will also be observed in this construction that the short tube K in addition to being adjustable around its axis in a vertical plane may be centered or adjusted laterally of the looped portion by operating the spaced sleeves J. It will be understood that the outer ends of these rotatable sleeves J normally abut against the shoulders I^2, formed by the broken-away portion or ends of the loop I' and the connecting-pin i^2, a recess being formed thereby for the snug reception of these sleeves J and the transverse member k of the T-joint, and by abutting against the shoulders I^2 the T-joint is held rigidly in position. By turning one of the sleeves J in one direction, however, its inner end j, threading in the T-joint, will feed the latter transversely of the pin i^2, and the other sleeve J not being rotated will slide along with the T-joint. When the T-joint has been moved the requisite distance for adjustment, the other sleeve J may now be turned in an opposite direction, unscrewing it from the T-joint until it engages its abutting shoulder I^2, when the T-joint and the short tube K will be again rigidly locked in its adjusted position.

The upper portions of the tube i are provided with suitable brackets m, between which is journaled a drum M, operated by the pedals m'. A rope or other flexible means N is connected at one end to the drum and passed around a suitable combination of pulleys n, the upper one of which is mounted on a suitably-supported gaff N', carried by the float, and the lower suspended one of which is connected, by means of the connection n^2, to an eye or projection n', secured to the pin i^2.

In operation I proceed to corral the herded shrimp by setting the seine substantially in a circle around the beacon-light or other attracting means, as shown in Fig. 7, and when the circle has been completed I gather in the free ends of the seine and may now pass the weighted edges thereof between the space formed by the parallel tubes. The plate E having been moved forwardly around its pivotal axis and the weighted edge of the seine being now passed through into this position, the plate E is swung backward on its pivotal axis to assume its normal position between the parallel tubes for bringing together and guiding the lead-lines of each side of the seine along spaces formed between the plate E and the tubes d', these spaces, as heretofore explained, being of a lesser width than the size of the weights on the lead-line, and consequently forming guides for preventing the lower edges of the seine from pulling through when the seine is hauled. The launch (indicated by 1) is now turned around and moved in a direction radially from the anchored light or other support until the seine assumes the position shown in Fig. 8, and if the weighted lower edges thereof have not yet been adjusted in position between the parallel tubes and the plate E in the manner just previously described this should be done now preparatory to hauling the seine. The seine is now ready for hauling, and the tender is gradually pulled toward the anchored light or other support, the seine being hauled and deposited on the tender or float until the tender assumes the position with reference to the anchored light or support indicated at Fig. 9, wherein the

open space 2 represents the contracted area containing the shrimp.

It will be understood that as the tender is being floated toward the anchored light or support the operator hauls in on the lead-lines as the cork lines are drawn in, and the lead-lines being brought together at the lower end of the closing means and running up between the telescoping tubes closes up the bottom edges of that portion of the seine, keeping the shrimp imprisoned within the seine and driving them toward the beacon-light until a pocket is formed by the lower wall of the drum being engaged by the lower end of the closing means and the lead-lines firmly secured therearound, when the whole may be elevated and the shrimp removed.

During the forward propulsion of the float the minor variations of the bed of the water are compensated for by the operator swinging the telescoping tubes around on the oscillating shaft C, which will raise and depress the lower end of the closing means, and thereby allow it to readily move along the uneven bed. In order to manipulate the closing means in this manner, the operator sits on the float, with his feet resting on the foot-rests d^3 and his legs strapped firmly in position by the strap d^4, the strap also assisting in allowing greater power to be applied by the legs for elevating the closing device. This means will generally be found sufficient where there are but slight variations in the bed of the stream; but where it is necessary to shorten the tubes the same may be telescoped by means of the hand-wheel winding in the rope, as heretofore mentioned.

In the modified construction shown in Figs. 10 and 11 the operation is substantially the same; but instead of moving the plate E around its pivotal axis for holding or releasing the lead-lines and adjusting their positions between the parallel tubes the short tube K is swung around its pivotal axis forwardly or rearwardly by the rod L and may be adjusted in any position in a vertical plane by means of the notched locking means at the upper end of the rod L. By the particular manner of pivotally supporting this closing means within the loop I', I provide means for centering the short tube K and the rod L, this being permitted by the revoluble sleeves J operatively engaging the transverse member k of the T-joint, as before described. In the construction shown in these figures I have also provided another means for elevating and lowering the closing device, the operation of which is apparent.

It will be understood that although I prefer to use a beacon-light, as heretofore described, I do not wish to limit myself to the exact form of beacon-light, and, indeed, I might use any other anchoring means for the outer looped portion of the seine. I do not wish to limit myself to any anchoring means for this portion of the seine, as the closing device might be equally as well used with seines set and anchored only by the weights of the lead-lines and having a bag or pocket formed in one portion thereof, whereby when the float is moved toward the pocket portion, or that portion pulled toward the float, the lead-lines are entirely drawn through the eye of the closing-tube, and the bag or pocket may be brought to the surface with the shrimp by elevating the closing means.

It is obvious that a flange may be formed around the bottom of the drum, as indicated at h, Figs. 4 and 5, which might add to the efficiency of closing the lead-lines taut around the lower surface of the drum and prevent the same from slipping off the drum when the drum is used.

Other modifications might be made without departing from the spirit of my invention, and I do not wish to limit myself to the exact details as shown and described; but

What I claim is—

1. In a seine-hauling device, the combination with a suitable support, located above the surface of the body of water, of closing means depending from said support into proximity with the bed of the body of water, for bringing together the lower edges of the seine while being hauled.

2. In a seine-hauling device, unanchored means coöperating with the seine for bringing together the lower edges thereof, and means for moving said unanchored closing means toward the seine while the seine is being hauled.

3. In a seine-hauling device, the combination with a floating support, of closing means, carried by said floating support, for bringing together the lower edges of said seine as the seine is hauled.

4. In a seine-hauling device, the combination with a movable floating support, of closing means, carried by said floating support, for bringing together the lower edges of said seine as the floating support is moved and the seine hauled.

5. In a seine-hauling device, the combination of means for hauling a set seine inclosing a predetermined area, comprising a floating support and a closing device carried by said floating support for bringing together the lower edges of the seine as the floating support is moved toward the seine and the seine hauled.

6. In a seine-hauling device, the combination with a floating support, guiding means for the lead-line of the seine, carried by said floating support, and so constructed as to bring together the lead-lines for closing the lower portion of the seine as the floating support is moved toward the seine and the same hauled.

7. In a seine-hauling device, the combination of means for hauling a seine set to inclose

and engage a suitable stationary support, comprising a floating support and a closing device carried by said floating support, for bringing together the lower edges of the seine as the floating support is moved toward the stationary support and the seine hauled.

8. In a seine-hauling device, the combination of means for hauling a seine set to inclose and engage a suitable stationary support provided with illuminating means for attracting the shrimp, comprising a floating support and a closing device carried by said floating support, for bringing together the lower edges of the seine as the floating support is moved toward the stationary support and the seine hauled in.

9. In a seine-hauling device, the combination with a suitable support, of closing means depending from said support for engaging and guiding together the lower edges of the seine while being hauled.

10. In a seine-hauling device, the combination with a suitable support, of spaced depending members carried by said support, and an adjustable member disposed longitudinally between said spaced members for guiding and bringing together the lower edges and sides of the seine as the same is hauled.

11. In a seine-hauling device, the combination with a suitable support, of spaced depending members carried by said support, a guiding member adjustable in vertical and lateral planes disposed longitudinally between said spaced members for guiding and bringing together the lower edges and sides of the seine as the same is hauled, and means for laterally adjusting said adjustable member.

12. In a seine-hauling device, the combination with a suitable support, of guiding and closing means for the lower and side edges of the seine, comprising spaced members suspended from said support and terminating in an enlarged looped portion, and an adjustable member located in said looped portion and disposed longitudinally between said spaced members.

13. In a seine-hauling device, the combination with a suitable support, of guiding and closing means for the lower and side edges of the seine, comprising spaced members suspended from said support and terminating in an enlarged looped portion, and a pivoted member mounted in said looped portion and disposed longitudinally between said spaced members.

14. In a seine-hauling device, the combination with a suitable support, of guiding and closing means for the lower and side edges of the seine, comprising spaced members suspended from said support and terminating in an enlarged looped portion, and a member mounted in said looped portion, adjustable in vertical and lateral planes and disposed longitudinally between said spaced members.

15. In a seine-hauling device, the combination with a suitable support, of spaced depending members carried by said support and merging at their lower ends into an enlarged spaced portion, an adjustable arm pivotally supported in said enlarged portion, a long arm pivotally connected to said short arm, forming a continuation thereof and extending longitudinally between said spaced members, and means for adjusting said long arm longitudinally for swinging said short arm around its pivotal axis.

16. In a seine-hauling device, the combination with a suitable support, of spaced depending members carried by said support and merging at their lower ends into an enlarged spaced portion, an adjustable arm pivotally supported in said enlarged portion, a long arm pivotally connected to said short arm, forming a continuation thereof and extending longitudinally between said spaced members, means for adjusting said long arm longitudinally for swinging said short arm around its pivotal axis, and means for adjusting said short arm laterally.

17. In a seine-hauling device, the combination with a suitable support, of a closing device, depending from said support, adapted to engage and bring together the lower edges of the seine while being hauled, and means for elevating and lowering said closing device.

18. In a seine-hauling device, the combination with a movable floating support, of a closing device, depending from said support, adapted to be moved substantially along the bed of the water and guide together the lower edges of the seine while being floated toward the seine, and means for elevating and lowering said closing device for accommodating it to the uneven bed-surface.

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

ARTHUR YANCEY.

Witnesses:
M. M. O'CONNOR,
W. MAX. DUVALL.