(No Model.) 2 Sheets—Sheet 1.

E. HAATAJA.

NET LEADER.

No. 587,308. Patented Aug. 3, 1897.

Fig: 1.

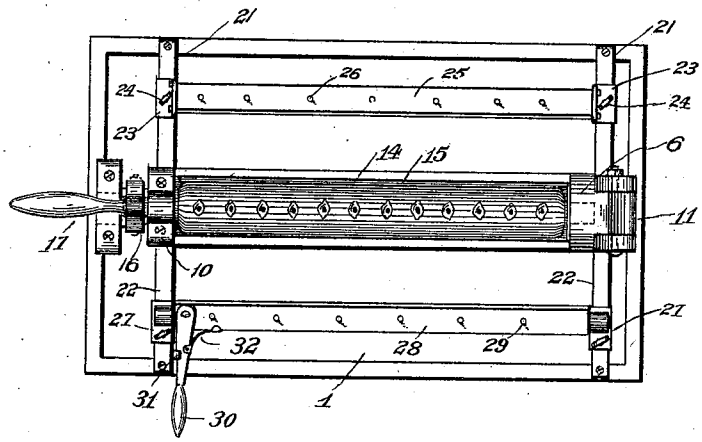


Fig: 2.

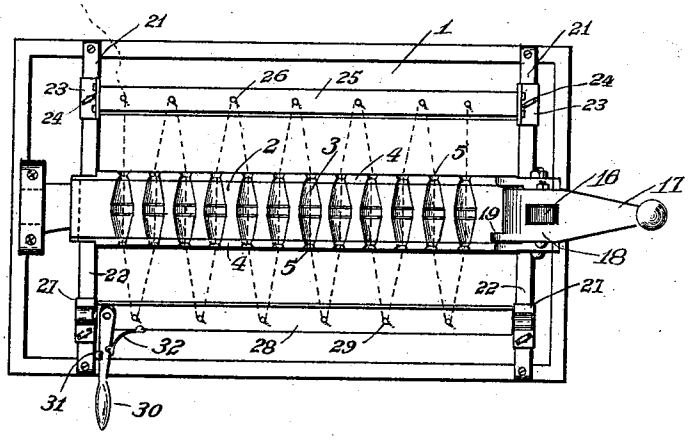
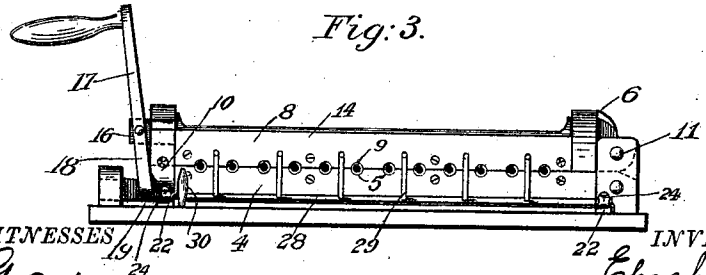


Fig: 3.



WITNESSES

F. L. Gray

Marcus L. Byng.

INVENTOR

Ephraim Haataja

by John Wedderburn

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

E. HAATAJA.

NET LEADER.

No. 587,308. Patented Aug. 3, 1897.

Fig. 4.

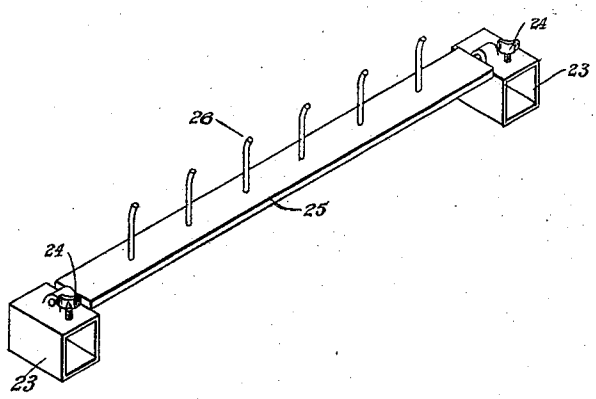


Fig. 6.

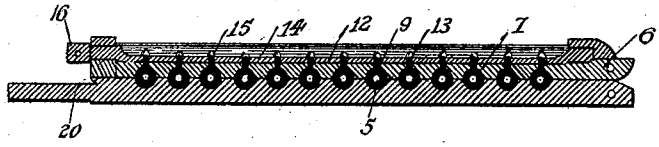


Fig. 5.

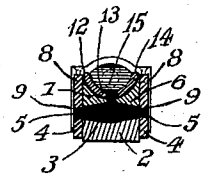
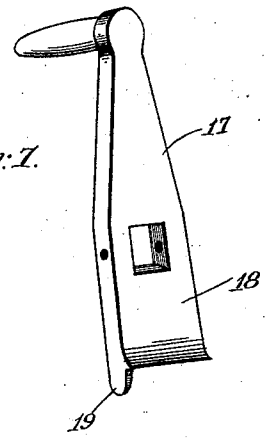


Fig. 7.



WITNESSES

T. L. Gray

C. E. Keller

INVENTOR

Ephraim Haataja.

by John Wedderburn

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EPRAHAM HAATAJA, OF ROSBURG, WASHINGTON.

NET-LEADER.

SPECIFICATION forming part of Letters Patent No. 587,308, dated August 3, 1897.

Application filed December 31, 1896. Serial No. 617,650. (No model.)

To all whom it may concern:

Be it known that I, EPRAHAM HAATAJA, of Rosburg, in the county of Wahkiakum and State of Washington, have invented certain new and useful Improvements in Net-Leaders; 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.

My invention relates to devices for leading fish-net lines; and its object is to provide an improved means whereby lead may be deposited upon a line designed to be used as the sinker-line at the bottom of a fish-net.

My invention consists in a series of molds having openings therein through which is adapted to be led a line, and means for regulating the length of the line between two consecutive molds, means for evenly distributing the lead in said molds, and other novel features of construction hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a top plan view of my device with the mold closed. Fig. 2 is a similar view with the mold open. Fig. 3 is a side elevation. Fig. 4 is a detail perspective view of my detachable rack and the release mechanism thereof. Fig. 5 is a cross-section through the molds, showing the cut-off mechanism. Fig. 6 is a longitudinal section through the molds, and Fig. 7 is a detail view showing the handle used in connection with the cut-off and the clamp mechanism.

The numeral 1 indicates the base of my improved device. To this base is secured a mold-block 2, having therein a series of half-molds 3. These molds are preferably of an ellipsoidal form. Attached to the mold-block at either side are closure-strips 4, provided with openings 5. To one end of this mold-block 2 is hinged a similar block 6, provided with complementary half-molds 7. To either side of this are attached closure-strips 8, provided with the openings 9, forming with the openings 5 a series of passages which are adapted to closely engage a rope run through said molds. These closure-strips are removably attached in order that various sizes may be used to accommodate various sizes of rope. At the end of the mold-block 6 are provided guides 10, adapted to fit over the mold-block 2 and hold the molds in proper relation to each other. These guides 10 are further used to form a bearing, the purpose of which will presently appear. A similar bearing 11 is also formed at the hinged end of the mold-block 6. A trough 12 is formed in the upper surface of the guide-block 6, and from this trough extend openings 13, each communicating with one of the molds. This trough is of circular cross-section. A similar trough 14 is rotatably mounted in the bearing formed by the guides 10 and the bearing formed at 11. This trough is provided with a series of openings 15 and is so mounted that said openings will move in close proximity to the openings 13. The openings 15 are further provided with conical sides, forming a sharp cutting edge at the outside of the trough. A squared end 16 is formed upon this trough, and to this end is pivotally attached a handle 17, adapted to rotate said trough 14 with reference to the trough 12. The handle 17 is extended at the lower end, as shown at 18, and has provided upon one side of said extension a lug 19, adapted to limit the rotary movement of said trough by bearing against the side of the mold-block 2. Immediately beneath this handle the mold-block is cut away, as indicated at 20, to form a notch with which the end 18 of the handle is adapted to engage. This constitutes my improved mold, and I will now proceed to describe the means by which I regulate the length of cord between the consecutive molds.

Guides 21 22 are securely attached to the base at right angles to the length of the mold-blocks. These guides may be formed in one piece, as shown, if desired. Mounted upon the guides 21 are slides 23, provided with thumb-screws 24. Between these slides extends a bar 25, having teeth 26 thereon. This bar is fixedly attached to the slides 23. It will be seen by this construction that this bar may be made to approach or recede from the molds and be held where desired upon the guides. Slides 27, similar to those mentioned before, are mounted upon the guides 22. To these guides is pivotally attached a bar 28, provided with teeth 29, all of similar construction to the bar 25 and teeth 26. The teeth upon these bars are so placed that the

end ones upon one or both of said bars will stand approximately opposite the end molds, and the intermediate ones are placed in staggered arrangement in such manner as to alternately stand between the consecutive molds. At one end of this bar 28 is provided a handle 30, pivotally attached thereto. Upon the base is provided a latch-hook 31, under which the handle is adapted to pass. A spring 32 normally urges said handle in the direction of said latch-hook.

When it is desired to cast lead upon the bottom rope of a fish-net, said rope is attached to one of the teeth that come opposite the mold and then led through that mold around the tooth between that and the succeeding mold, and so on through the various molds. Lead is now poured into the trough 14 and flows through the openings 15 and 13 into the molds, the handle 17 being forced down to securely clamp the mold-blocks 2 and 6 together. When the lead has solidified, the handle is rotated, which cuts off the portion of the lead contained within the trough 14 from that contained within the molds. This forms a series of molded sinkers upon the line. When this is done, the handle 30 is released from the latch-hook and the bar 28 rotated to release the rope from engagement with the teeth 29. The mold is now opened, and the leaded line may be readily removed therefrom. In order to provide for the various lengths of line desired between the leads, the bars are moved toward or from the mold. By their independent movement it will be seen that the leads may be arranged in pairs close together, having a longer length rope between each pair, or they may be evenly spaced upon the line. I thus provide an efficient device of the character described. It is obvious that many minor changes may be made in the construction without departing from the spirit of my invention. I do not, therefore, desire to confine myself to the exact form herein shown and described.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a mold, the combination of a pair of mold-blocks having a series of molds therein, closure-strips removably attached to said mold-blocks and provided with openings through which is adapted to be led a rope, a trough carried above said mold-blocks provided with openings, each of which communicates with one of said molds, a handle adapted to rock said trough, and a lug upon said handle adapted to limit the rocking motion of said trough, substantially as described.

2. In a mold, the combination of a lower mold-block provided with a series of half-molds and having at the end thereof a recess, of an upper mold-block hinged to said lower block, having a complementary series of half-molds, openings extending from each of said molds through the top of said upper block, closure-strips attached to said blocks, each provided with semicircular notches adapted to form circular openings when the mold is closed, a rotatable trough carried by the upper mold, provided with openings registering with the openings from the molds, a handle attached to said trough and adapted to rock the same, means to limit the rotation of said handle, and an extension upon said handle adapted to engage said recess in the lower block and lock the mold-blocks together, substantially as described.

3. In a net-leader, the combination with a series of molds, of rotatably-mounted bars provided with pins, adjustable relative to said molds, substantially as described.

4. In a net-leader, the combination with a series of molds, of guides extending laterally relative to the mold-blocks, a bar provided with pins and carried by said guides, and clamps upon said bar, substantially as described.

5. In a net-leader, the combination with a mold, of guides extending laterally therefrom, slides mounted upon said guides, a rotatable bar carried by said slides and provided with a series of pins thereon, and means for holding said bar from rotation, substantially as described.

6. In a net-leader, the combination of a mold, guides extending laterally therefrom, slides mounted upon said guides, means for holding said slides in any desired position thereon, a toothed bar rotatably mounted upon said slides approximately parallel to the mold, a handle pivotally attached to said slide, a latch-hook adapted to receive and hold said handle, and a spring normally urging said handle toward said hook.

7. In a net-leader, the combination with a mold, of guides extending laterally upon either side thereof, slides mounted upon said guides, means for holding said slides in any desired position thereon, a toothed bar fixedly attached to said slides upon one side of the mold, a similar bar rotatably attached to said slide upon the opposite side of the mold, and means for holding said bar from rotation, substantially as described.

8. In a net-leader, the combination with a mold, of guides extending laterally upon either side thereof, slides mounted upon said guides, means for holding said slides in any desired position thereon, a toothed bar fixedly attached to said slides upon one side of the mold, a similar bar rotatably attached to said slides upon the opposite side of the mold, a handle pivotally attached to said rotatable bar, a latch-hook adapted to receive and hold said handle, and a spring normally urging said latch-hook toward said handle.

9. In a net-leader, the combination with a mold-block provided with a series of half-molds, of a similar block having openings from the half-molds therein through the top of said block, a trough provided with a series of coincident openings formed with a sharp edge, held above said block, a handle attached

to said trough adapted to rock the same, means for limiting the rotation of said trough, means for locking the two halves of said blocks together, closure-strips detachably attached to said blocks provided with notches adapted to form circular openings when said blocks are closed, guides extending laterally upon each side of said mold-block, slides mounted upon said guides, means for holding said slides in any desired position relative to said guides, a toothed bar fixedly attached to the guides upon one side of said mold, a similar bar rotatably attached to the slides upon the opposite side, a handle rotatably mounted upon said bar, a latch-hook adapted to receive the handle and prevent the rotation of said bar, and a spring normally urging said handle in the direction of said hook, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

EPRAHAM HAATAJA.

Witnesses:
JOHN H. SMITH,
A. M. SMITH.