Feb. 25, 1936. E. W. HIMBERGER 2,031,889

COUPLING LINK

Filed Feb. 16, 1934

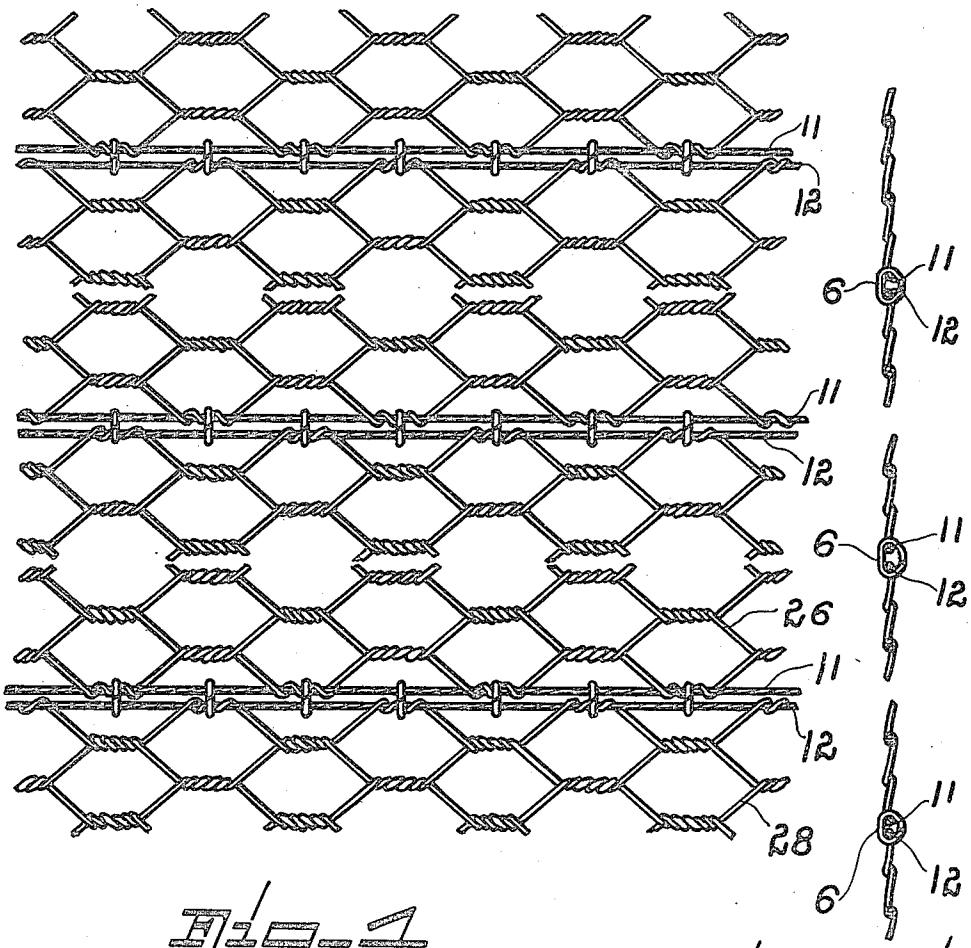

Fig. 1

Fig. 2

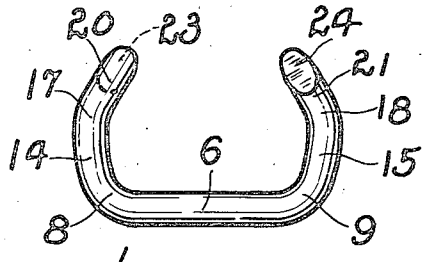

Fig. 3

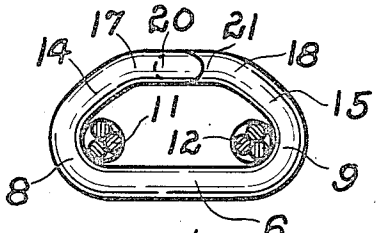

Fig. 4

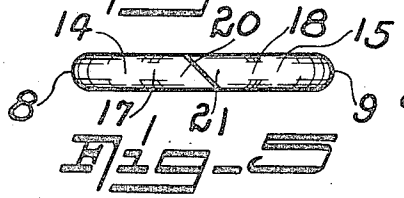

Fig. 5

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COUPLING LINK

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Application February 16, 1934, Serial No. 711,621

1 Claim. (Cl. 245—9)

My present invention relates to the art of fishing equipment and more particularly to a coupling link.

My particular form of coupling link is intended for normal use in the fabrication of fish traps, especially salmon traps. These are normally constructed with long, fish guiding means called leads which consist of a row of driven piling which are suitably inter-connected by means of a timber cap and hung from the cap are several widths of quite heavily made wire mesh comparable in structure to ordinary chicken wire excepting that it is made of heavy gauge metal suitably galvanized, to prevent the deteriorating effects of salt water. The netting normally is hung by placing one row with its upper edge secured to the cap and its other edge hanging downwardly. To this is successively secured other rows or strips, normally about 6 feet wide, until sufficient has been hung to provide a lead of sufficient depth to prevent the fish going under the same. In certain localities, particularly where the tides are extreme, it is not uncommon to have 8 or 10 widths of this netting and the weight of 60 feet of wire of the heavy gauge used places an unusual strain on the coupling means which are used to join the different strips together. It has been normal in the past to use the ordinary hog rings for joining the two selveged edges together placing one link within each mesh. When this ring is closed with the usual closing device it provides a triangular link and too often the strain is placed on two corners in such a way that the lapped over joint is pulled open. In the past this difficulty has been overcome to a degree by making the link of very heavy wire. This however added a great deal to the expense and made the closing of the ring more difficult. With my present link I have so arranged it that when the link is closed on the selveged edges the points of bearing are definitely provided in such a way that the strain will be applied to corners of the ring adjacent the straight side of the ring. This adds greatly to the ring's ability to resist distortion and opening. As a result of this construction it has been possible to reduce the size of wire. This in turn reduces the cost of the ring and provides a ring that can be more easily closed.

The principal object of my present invention is to provide a hog ring for joining the edges of abutting material with a ring that is easily applied and provides the greatest resistance to distortion for a given weight of ring stock.

Other and more specific objects will be apparent from the following description taken in connection with the accompanying drawing, wherein

Figure 1 is an elevation showing, in fragmentary form, the method of joining the selveged edges of wire netting together. Figure 2 is an end view of Figure 1. Figure 3 shows my ring in its open position before applying to the margin of the netting. Figure 4 is a view showing the ring closed and showing the selvedges in section. Figure 5 is a top view of Figure 4 without the selvedge.

Referring to the drawing, throughout which like reference characters indicate like parts, **6** designates the straight uninterrupted side member which may be considered as a backbone of my link. Terminating each end of the straight portion **6**, which may be more properly referred to as the tension member, I provide two substantially equal bends **8** and **9**. These bends should be of such a size that they will rather snugly encircle, in part, the selvedges as **11** and **12**, which the link is designed to join together. This relationship is quite desirable in that it is the intention to at all times assure that the tension stresses set up in member **6** will be applied as close to its longitudinal axis as possible. Curves **8** and **9** merge into the straight deflector portions **14** and **15**. By referring to Figure 4 it will be clear, it is believed, that I prefer that these straight portions are disposed at an acute angle with reference to side **6**. The purpose of this is to further guide the selvedges **11** and **12** into the relatively small curved portions **8** and **9**. The deflector portions **14** and **15** merge into curves at **17** and **18** which in turn merge into the straight portions **20** and **21**. These two straight portions are formed with complementary, diagonally cut ends as will best be observed in Figure 5 and are indicated by the reference characters **23** and **24** respectively.

Method of operation

In using my improved link the two selvedged edges of abutting strips of netting as **26** and **28** are brought closely together. The link having the form shown in Figure 3 is then inserted in the nose of the closing device. This device must be provided with angled jaw members, either fixed or pivoted with respect to each other, which are mounted at substantially the angles shown in Figure 4 for the side members **14** and **15**. The open ends **23** and **24** of the link are then inserted over the two selvedges **11** and **12** and the closing of the ring then accomplished. As shown in Figure 3 it will be noted that the two sets of oppositely faced bends **8**—**14** and **9**—**15**, have the ini-

tial bends as viewed in Figure 3 and with the angles for the straight portions 14 and 15 established by the closing jaws, the final closure appears as in Figure 4. It will be noted, and it is desired to point out that it is a very desirable characteristic of the link, that the distance between the inside of curves 8 and 9 is substantially greater than the distance from tension member 6 to the straight members 20 and 21 which forms the opposite side. When this arrangement is maintained the selvedges will always seek out the extreme dimension which will place the strain where desired on the tension members 6.

The foregoing description and the accompanying drawing are believed to clearly disclose a preferred embodiment of my invention but it will be understood that this disclosure is merely illustrative and that such changes in the invention may be made as are fairly within the scope and spirit of the following claim.

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

An integral connecting link comprising straight portions forming a short lapped side-bar, a longer straight tension-bar terminating in inturned, curved bearing-bends having a comparatively short radius, and a pair of deflector bars disposed at oppositely inclined acute angles to the tension-bar and located between said bearing-bends and the short side-bar.

EARL W. HIMBERGER.