

(No Model.)

C. R. HARRIS.
CHAIN LINK.

No. 510,134.

Patented Dec. 5, 1893.

Fig. 1

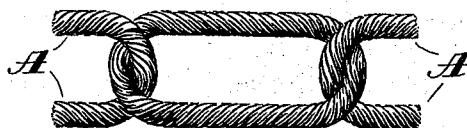


Fig. 2.

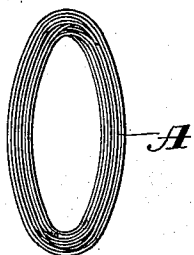


Fig. 3.

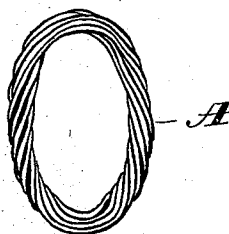


Fig. 4.



Witnesses

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CHAIN-LINK.

SPECIFICATION forming part of Letters Patent No. 510,134, dated December 5, 1893.

Application filed January 4, 1893. Serial No. 457,221. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. HARRIS, of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Chain-Links; 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 an improvement in chain links and it consists in one or more superimposed wire loops held compactly and intimately together throughout their lengths by means of twists formed spirally therein.

In the accompanying drawings, Figure 1 is a view of a portion of a chain composed of my improved links. Figs. 2 and 3 are views showing different stages of the formation of the links; and Fig. 4 is a transverse section.

A represents a piece of wire employed in the formation of a link. The wire may be bent in several ways to form the link but preferably it is first made into loops of proper size. As many of these loops are formed as is required to give the size and strength desired and they may conveniently be formed by winding or looping the wire over a form for the purpose. When an adequate number of these loops has been made they are grasped at opposite points by clamps or suitable devices and one or both of the clamps are rotated to twist the superimposed loops together spirally. When both clamps rotate they are of course made to turn in opposite directions. The wires are twisted until they are intimately and compactly united from one end of the link to the other. The link might be slightly different as for instance the loops could be held together by winding a part of the wire spirally around the loops constituting the body of the link.

After the chain is made it is dipped in tin or zinc. This prevents the chain from rusting and solders the parts securely together, the molten tin or zinc filling the interstices between the wires.

While it is my purpose generally to make these links by machinery, it is possible to make them by hand by winding the wires separately. When thus wound the wire is made as soft as possible and after the links are formed they are hardened to give them the desired rigidity.

It is evident that other slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention and hence I do not wish to limit myself to the exact construction herein set forth, but,

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

1. A chain link consisting essentially of one or more superimposed wire loops held together compactly by spiral bends formed in the wire, substantially as set forth.

2. A chain link composed of a wire strand folded into two or more loops, and said loops twisted together spirally whereby the several parts forming the link are held together compactly and intimately, substantially as set forth.

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

CHARLES R. HARRIS.

Witnesses:

VERNON E. HODGES,
C. S. DRURY.