

(No Model.)

J. W. GARLAND.
CHAIN LINK.

No. 565,445.

Patented Aug. 11, 1896.

Fig. 3.

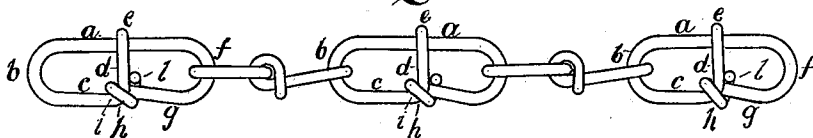


Fig. 2.

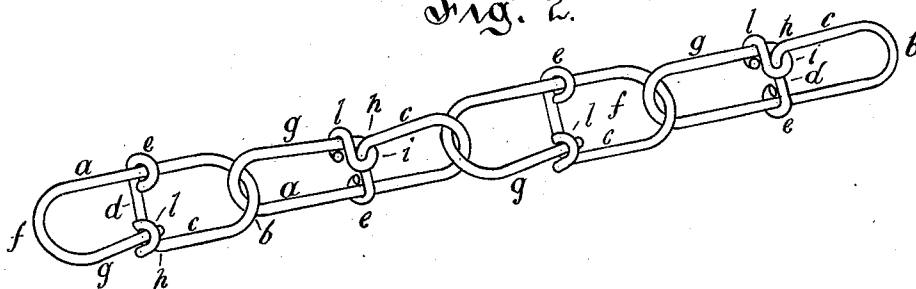
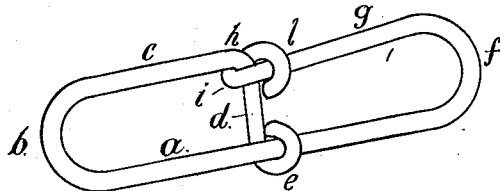


Fig. 1.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN W. GARLAND, OF WILKINSBURG, PENNSYLVANIA.

CHAIN-LINK.

SPECIFICATION forming part of Letters Patent No. 565,445, dated August 11, 1896.

Application filed April 5, 1896. Serial No. 544,668. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. GARLAND, a resident of Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Chain-Links; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to chain-links, and has special reference to the class of chain-links shown in Letters Patent No. 426,177, granted to me April 22, 1890, in which the links are formed from rod or wire and have one continuous side bar, a central cross-bar, and looped end portions, the present invention being an improvement upon the same, and its object being to increase the strength of the joint between the cross-bar and the end of the rod which extends around the same, and so increase the tensile strength of the link.

It consists, generally stated, in a chain-link formed of a single piece of rod or wire and having side bars, end bars, and a central cross-bar, the end bar being bent back to form a side bar and being then twisted around the central cross-bar and then looped around such side bar so formed, so as to obtain not only the strength of the twist around the cross-bar, but of the said loop around itself, and in that way to largely increase the strength to resist tensile strain, this loop being preferably employed with the chain-link covered by the patent above referred to.

To enable others skilled in the art to make and use my invention, I will describe it more fully, referring to the accompanying drawings, in which—

Figure 1 is a perspective view of the chain-link, and Figs. 2 and 3 show a portion of the chain formed of such links.

Like letters of reference indicate like parts in each.

The chain-links are formed of rod or wire which is of uniform cross-section, preferably round. The link has the continuous side bar *a*, which extends for the length of the link, one end portion being bent to form the end portion *b*, and then extending back parallel with the continuous side bar *a*, as at *c*, to about the

center of the link, where it is bent, at *h*, toward the side bar *a* to form the cross-bar *d*, the end of which is bent around the side bar, forming the loop *e*. The other end of the bar is bent to form the end portion *f*, and then extends back, as at *g*, to the cross-bar *d*. It is then twisted around this cross-bar, as at *i*, and is then looped around itself to form the peculiar lock embodied in the present invention—that is to say, that the side bar *g* is carried down to the cross-bar and is twisted around the cross-bar, as at *i*, lying close to the bend *h* between the cross-bar and the side bar *c*, and it is then carried and looped around the side bar *g*, as at *l*. In this way I am enabled to obtain the strength not only of the ordinary twist around the cross-bar to resist the tensile strain brought on the link, but by the second loop around the longitudinal side bar *g* cause the rod to entirely encircle the cross-bar and then lock it around the side bar *g*, and in this way I greatly increase the strength to resist tensile strains, so that the link will break at the end portions before this connection between the cross-bar and the side bar *g* will open even in the lightest rod or wire employed for chain-links. In forming such lock the side bars *c* and *g* are brought as nearly as practicable into line with each other and with such lock are as strong as the continuous side bar *a*.

The links can be rapidly formed by machinery, each link engaging with the adjoining links.

What I claim as my invention, and desire to secure by Letters Patent, is—

A chain-link formed of a single piece of rod or wire, and having side bars, end bars and a central cross-bar, an end bar being bent back to form a side bar and being then twisted around the cross-bar and then looped around such side bar so formed, substantially as described.

In testimony whereof I, the said JOHN W. GARLAND, have hereunto set my hand.

JOHN W. GARLAND.

Witnesses:

ROBERT GARLAND,
WM. G. STEWART.