

(No Model.)

J. W. GARLAND.
CHAIN LINK.

No. 565,445.

Patented Aug. 11, 1896.

Fig. 3.

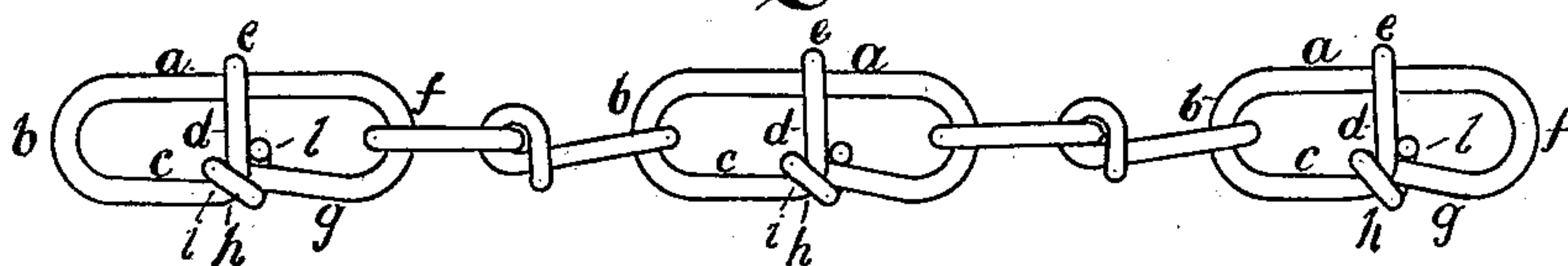


Fig. 2.

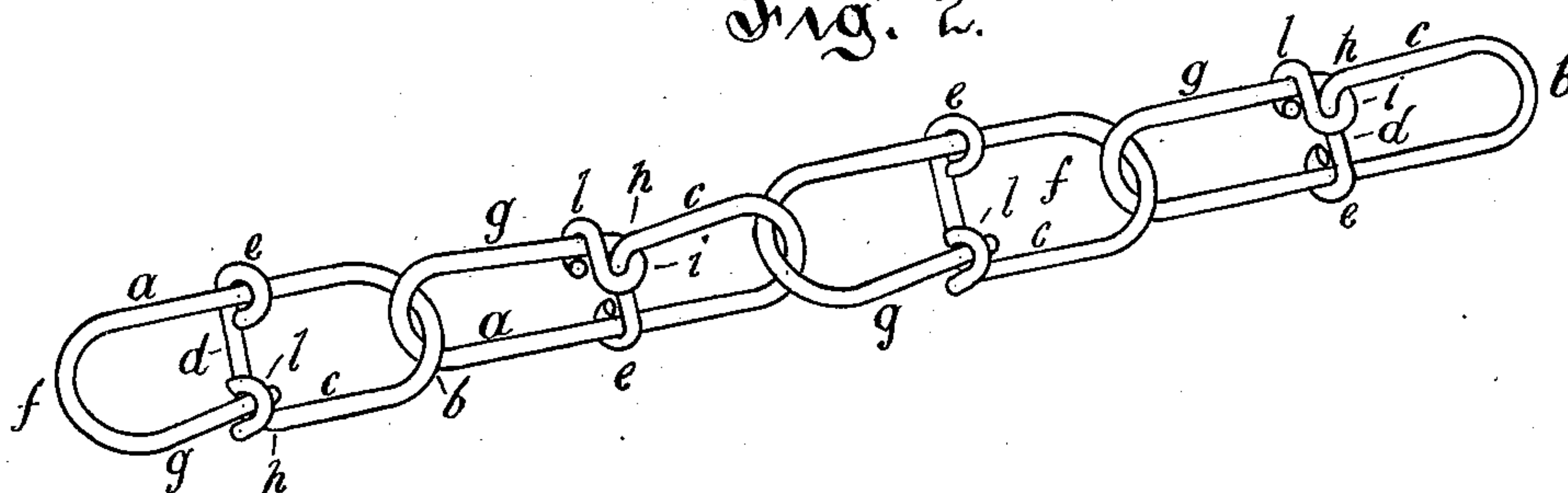
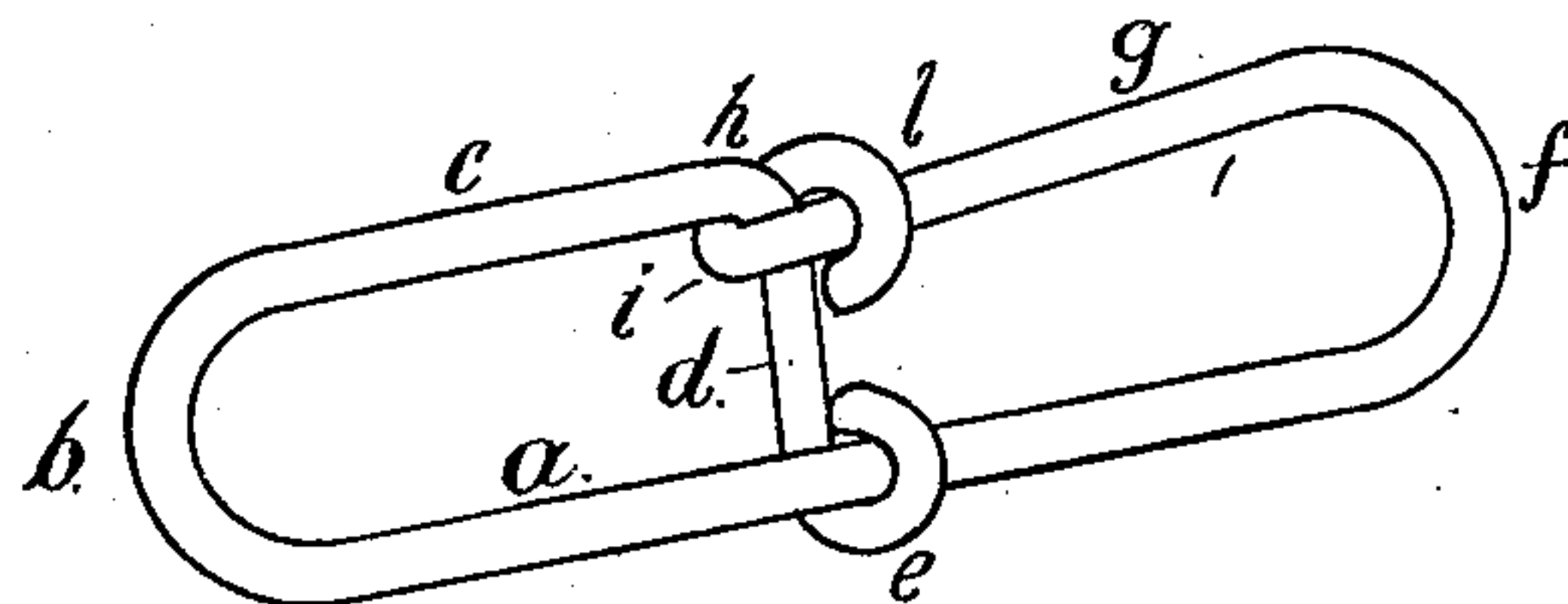


Fig. 1.



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, 1895. Serial No. 544,568. (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
5 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
10 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
15 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 in-
20 crease 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
25 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
30 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
35 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
40 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
45 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
50 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
55 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
60 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*,
65 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
70 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
75 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
80 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
85 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 de-
90 scribed.

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

JOHN W. GARLAND.

Witnesses:

ROBERT GARLAND,
WM. G. STEWART.