

J. A. LIEB.

ORNAMENTAL CHAIN-LINKS.

No. 184,159.

Patented Nov. 7. 1876.

Fig. 1.



Fig. 2.



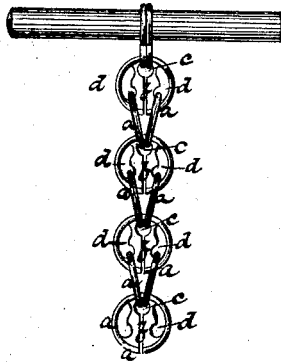
Fig. 3.



Fig. 4.



Fig. 5.



Witnesses.

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per  
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# UNITED STATES PATENT OFFICE.

JOHN A. LIEB, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN ORNAMENTAL CHAIN-LINKS.

Specification forming part of Letters Patent No. 184,159, dated November 7, 1876; application filed March 4, 1876.

*To all whom it may concern:*

Beit known that I, JOHN A. LIEB, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Ornamental Chains, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figures 1, 2, 3, and 4 represent a chain-link made according to my invention, in the different stages of its manufacture. Fig. 5 shows portion of a chain.

Similar letters indicate corresponding parts. My invention relates to improvements in the manufacture of ornamental chains of sheet metal; and consists, substantially, in a sheet-metal link, which is provided with a turned or beaded edge, whereby I obtain an article having a highly ornamental appearance, which is exceedingly durable, and can be got up at a low cost.

In carrying out my invention, I cut from a strip of sheet-metal blanks similar to the one seen in Fig. 1, and subject these blanks to the action of suitable dies, so as to turn the edges thereof upward, as seen in Fig. 2. The blanks are then placed under a second die, which is so constructed that by its action the edges previously turned up are turned completely over on themselves, so as to form a bead, *a*, all around the blanks, as shown in Figs. 3 and 4. The blanks are next cut out by suitably-shaped dies to the form shown in Fig. 4, or to any other selected form, being in

this operation provided with a slit, *b*, which terminates in a hole, *c*, and with openings *d d*, one on either side of the slit. The blanks thus acquire the form of links, and are ready to be connected together for the purpose of forming a chain. When made of the form shown, the links are connected together in pairs, their connection being effected through the slit *b* and the side openings *d d*, substantially as shown in Fig. 5. The links, however, by being cut out to a suitable shape, may be connected together singly instead of in pairs. By making the links with a beaded edge they acquire great rigidity, in addition to an ornamental appearance, while they can be got up at a comparatively low cost. By this construction, moreover, if the links are made of plated stock, the edge of the base metal is concealed.

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

A chain composed of links formed of sheet-metal disks or blanks, having their edges stamped or shaped into a bead, *a*, and provided with the openings *d d* and slits *b*, terminating in the holes *c*, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of March, 1876.

JOHN A. LIEB.

Witnesses:

W. HAUFF,  
CHAS. WAHLERS.