

(No Model.)

L. S. BEALS & P. THOMAS.  
ORNAMENTAL CHAIN.

No. 442,505.

Patented Dec. 9, 1890.

Fig. 1.

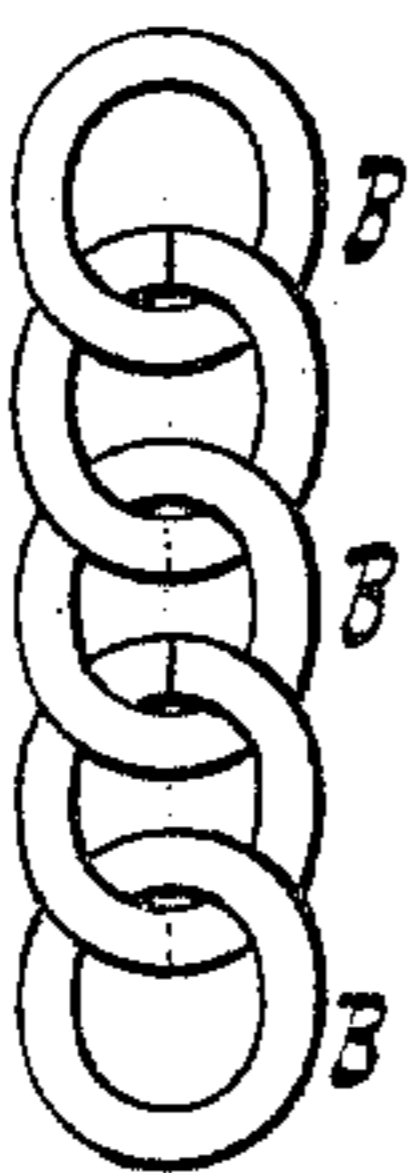


Fig. 2.



Fig. 3.

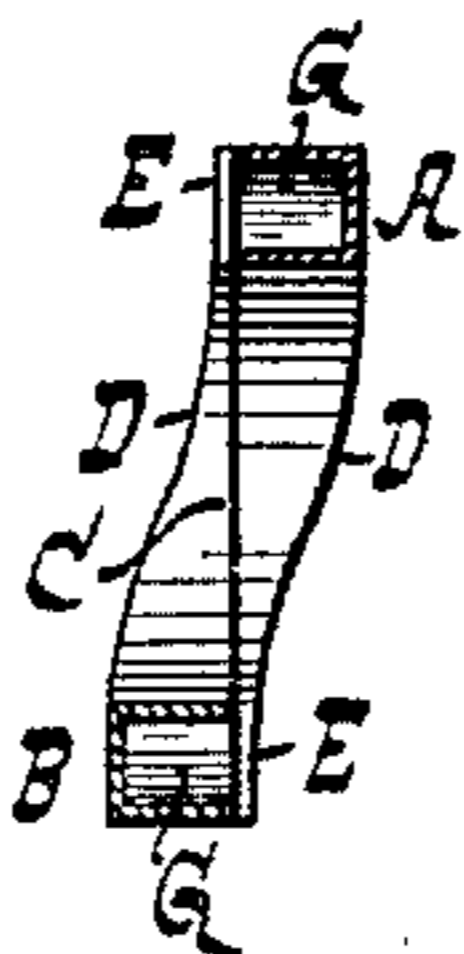


Fig. 4.

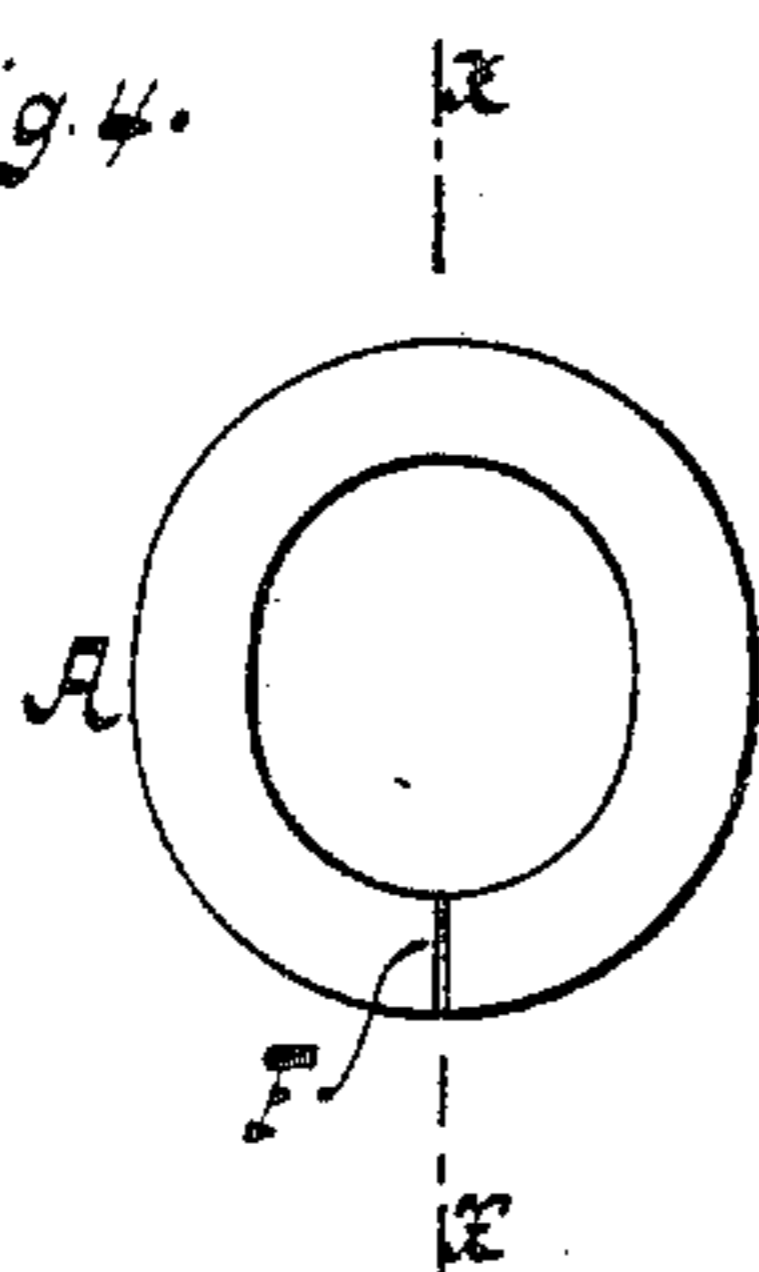


Fig. 6.

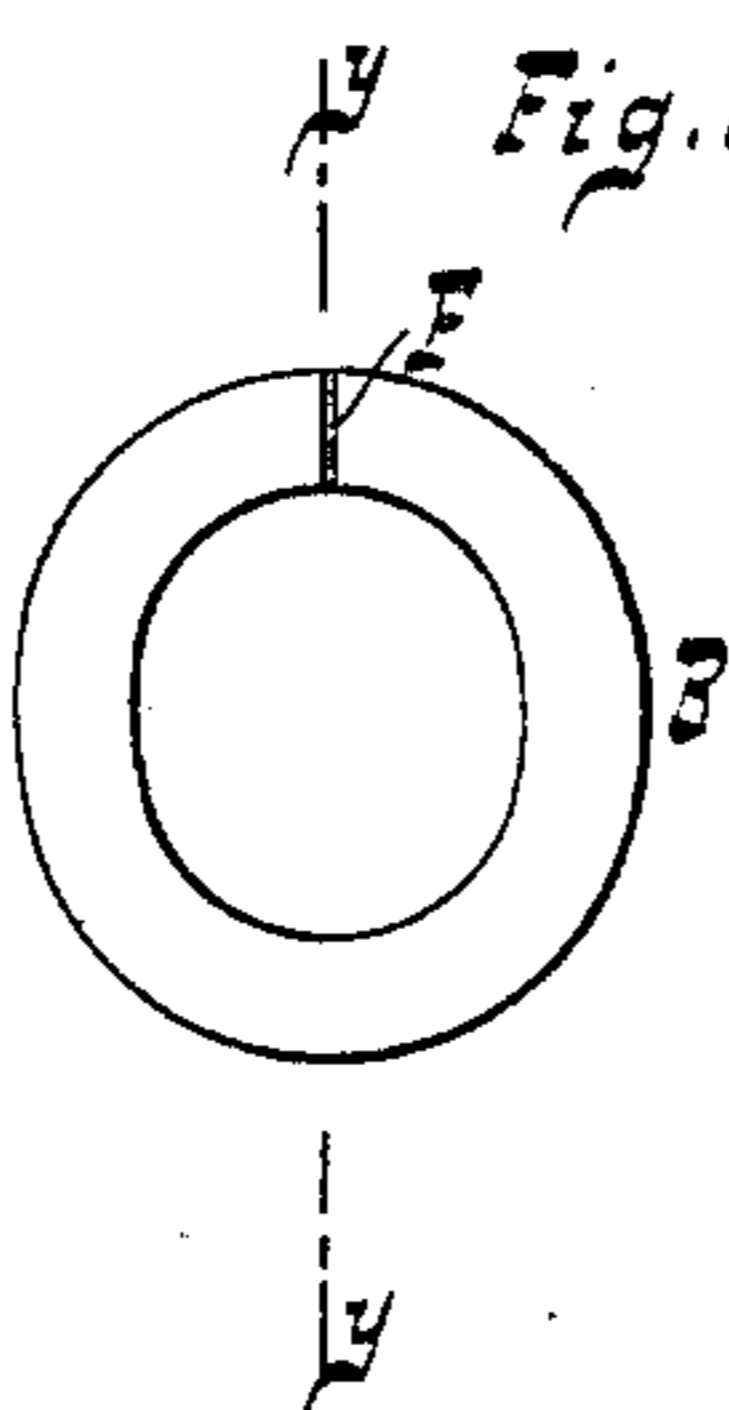


Fig. 5.

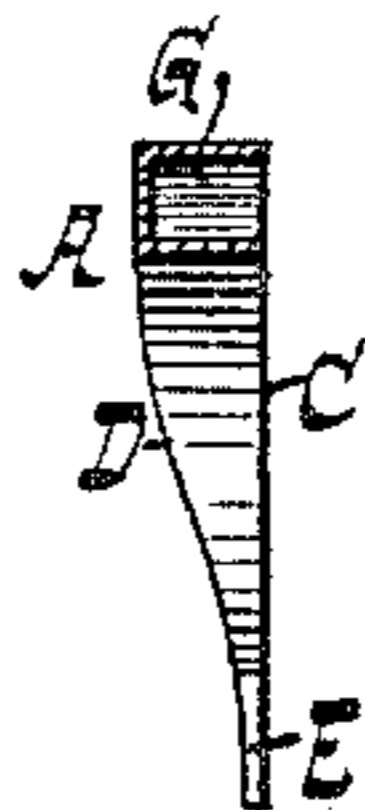
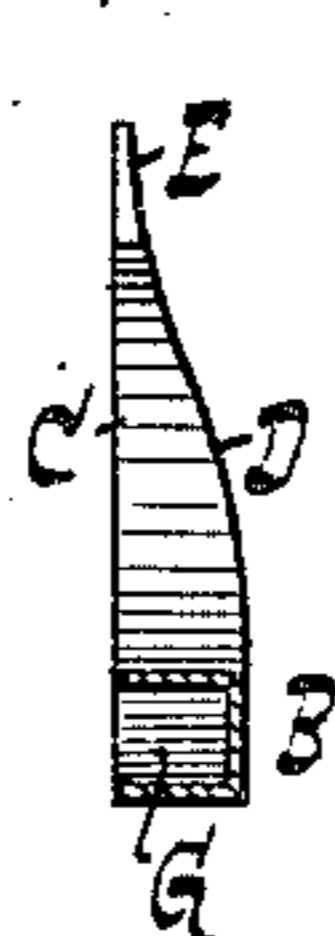


Fig. 7.



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# UNITED STATES PATENT OFFICE.

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## ORNAMENTAL CHAIN.

SPECIFICATION forming part of Letters Patent No. 442,505, dated December 9, 1890.

Application filed October 6, 1890. Serial No. 367,244. (No model.)

*To all whom it may concern:*

Be it known that we, LEONARD S. BEALS and PHILIP THOMAS, citizens of the United States, residing at Long Island City, in the county of Queens and State of New York, have invented new and useful Improvements in Ornamental Chains, of which the following is a specification.

This invention relates to chains, and is especially applicable to such as are worn upon the person, and to those that are designed for ornament, whether made of gold, silver, or other material.

The invention consists in certain novel features of construction of the links, which are fully described and set forth in the following specification and claims, reference being had to the accompanying drawings, in which—

Figure 1 shows a face view of a piece of chain containing our invention. Fig. 2 shows an edge view of Fig. 1. Fig. 3 is a cross-section of one of the links of the chain. Fig. 4 is a top view of the division of the link shown in Fig. 5. Fig. 5 is a section along  $x x$ , Fig. 4. Fig. 6 is a top view of the division of link shown in Fig. 7. Fig. 7 is a section along  $y y$ , Fig. 6.

Fig. 1 shows a piece of a completed chain made according to our invention. The piece shows five links of the chain. Each link consists in this example of our invention of two vertical divisions A B, and each division has one plane surface or edge C and its opposite surface D D irregular or curved. Each division tapers to a thin edge at one side or point, as is indicated at E, at which place the link is made thin, so that it can be readily split, as indicated at the line F in Figs. 4 and 6, for the purpose of interlocking the several divisions with each other in forming the chain. The thicker portions of the divisions are made hollow, as indicated by the letter G, in order to reduce the weight of the links. This is done by suitable dies in forming the divisions. The divisions which form a link are counterparts of each other, but are arranged conversely upon each other, so that the thin

edge of one comes opposite the thicker edge of the other and covers the hollow space G, while the plane straight surfaces C of the two divisions are next to each other.

In making the chain it is only necessary that the two divisions of each alternate link be split at the line F, and having been interlocked with the divisions of the link next adjoining the divisions of each of the said two links are then adjusted upon each other, so that the divisions of each link are placed in the relative positions shown in Fig. 2, in which positions they are soldered to each other. The plane straight surfaces C of the divisions A B enable one to solder the divisions to each other with facility. As the links are successively formed and interlocked with each other, the split parts F of the divisions are closed by solder.

In this example the divisions that form the links are reduced in thickness only on one side and are increased in thickness on the opposite side only; but we do not confine ourselves to that construction, as they can be reduced and increased in thickness at two or more points; but we consider it important that the surfaces of the divisions which adjoin each other in forming the links be straight plane surfaces.

The links can be made oval, round, square, diamond-shaped, or of any desired form.

By giving the outer faces of the links an irregular or corrugated form we obtain what is known as a "curbed chain," and as said chain is hollow it can be made light and cheap. By forming each link-division by itself with its proper curve in a suitable die the various divisions when soldered together and the chain completed will form a twisted or curbed chain.

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

1. A chain-link composed of two or more divisions provided with plane surfaces along which they are united to form the link, a thin edge split to enable the divisions of alternate links to be interlocked with each other, a thick edge formed on said divisions and pro-

vided with hollow spaces, such spaces being covered by the said thin edges, substantially as described.

2. A hollow chain-link composed of two divisions, each having its inner edges straight and its outer edge or face irregular, curbed, or corrugated, said divisions being united to one another along the straight edges, with the thinner part of one division resting on the thicker part of the other division, substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

LEONARD S. BEALS.  
PHILIP THOMAS.

Witnesses:

WM. C. HAUFF,  
E. F. KASTENHUBER.