

(No Model.)

J. E. CROOK.
ORNAMENTAL CHAIN.

No. 407,723.

Patented July 23, 1889.

Fig. 1.

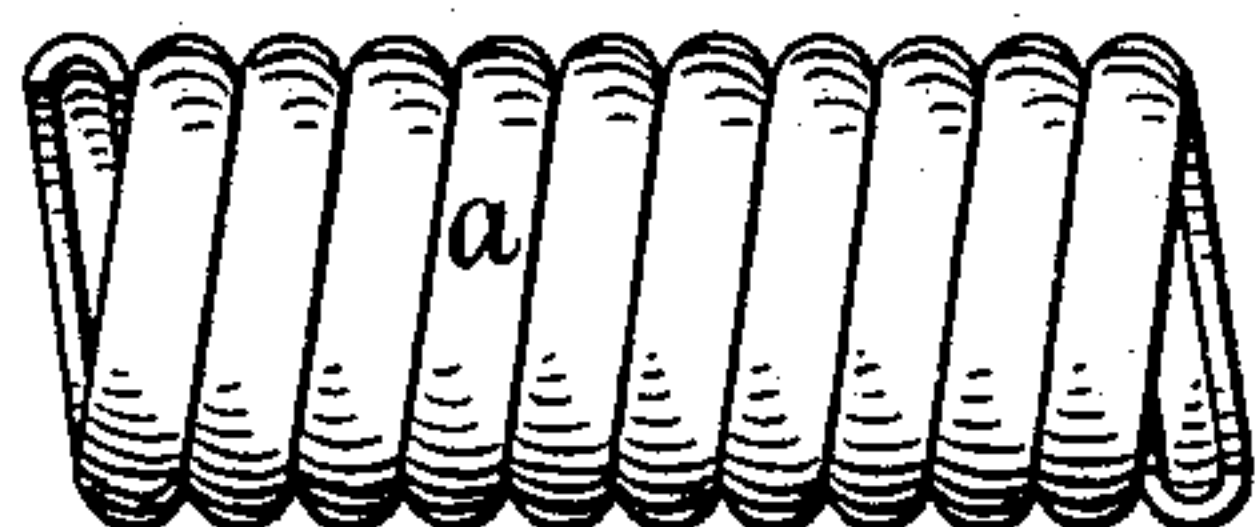


Fig. 2.

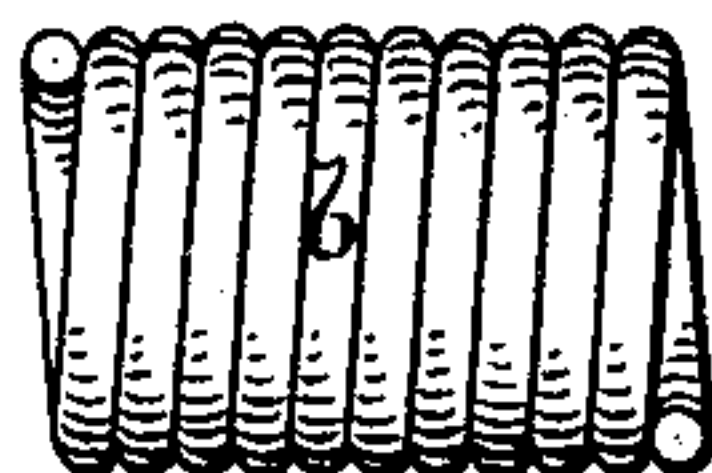


Fig. 3.

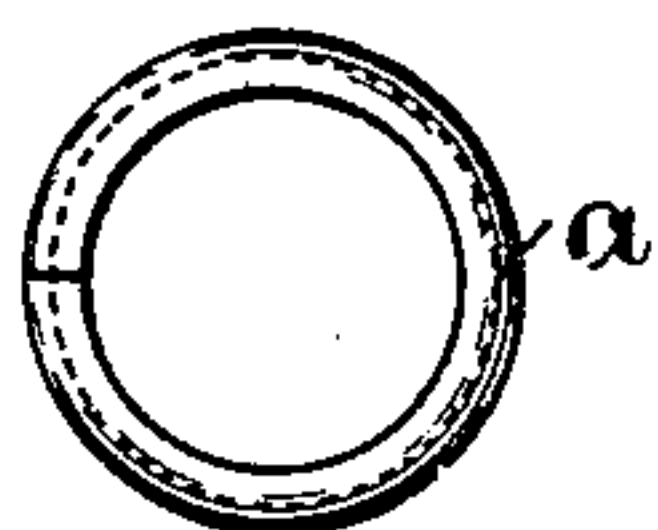


Fig. 4.

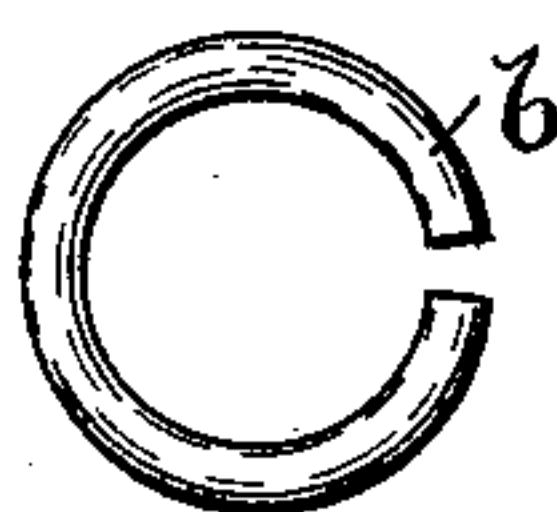


Fig. 5.

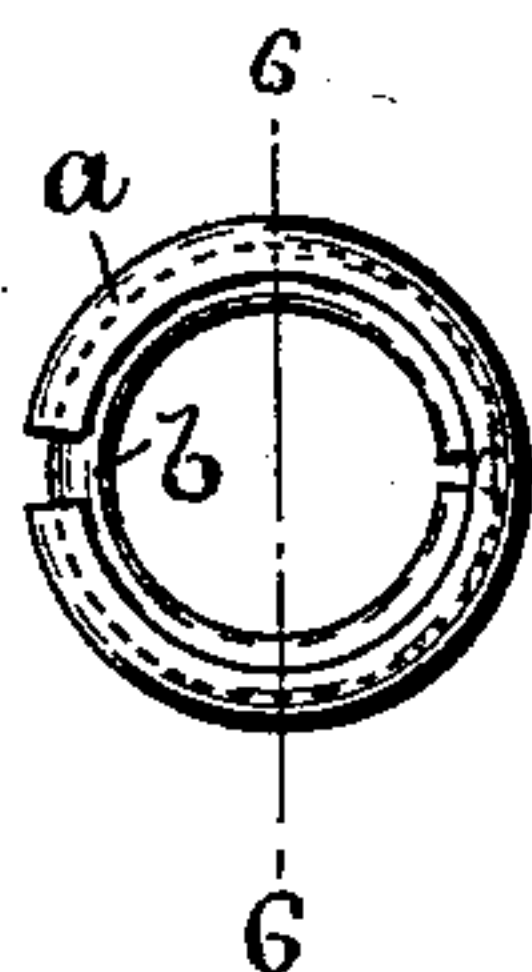


Fig. 6.

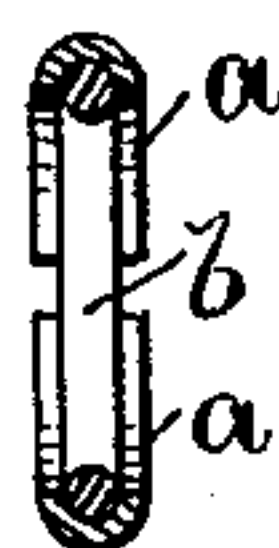


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOSEPH E. CROOK, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR OF ONE-HALF
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ORNAMENTAL CHAIN.

SPECIFICATION forming part of Letters Patent No. 407,723, dated July 23, 1889.

Application filed December 26, 1888. Serial No. 294,633. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH E. CROOK, of the city of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Ornamental Chains, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 This invention has reference to an improvement in the class of ornamental chains known in the art as "rope chains," and is applicable to other ornamental chains.

15 The invention consists in forming the chain out of links consisting of two rings placed one within the other, as will be more fully set forth hereinafter.

20 Figure 1 is a view of a wound spiral of the grooved wire from which the outer ring of the link is made. Fig. 2 is a view of a wound spiral of wire from which the inner ring of the link is made. Fig. 3 is a view of the outer grooved ring, the depth of the groove being shown in broken lines. Fig. 4 is a view of the inner ring. Fig. 5 is a view of the compound ring. Fig. 6 is a sectional view of the compound ring on line 6 6. Fig. 7 is a view of a chain made up of the compound links.

30 In the drawings similar letters of reference indicate corresponding parts throughout.

Referring to the drawings, *a* designates a grooved wire designed to form the outer ring of a link. This wire is usually wound on an arbor, as is shown in Fig. 1, and then cut along the axis of the arbor, so as to form a number of rings.

35 *b* indicates the inner ring. It is made of a wire fitting into the groove of the wire *a*. This wire is also wound spirally on an arbor, as shown in Fig. 2, and cut to form rings. Both rings being in the spiral form, the solid ring can be readily inserted into the grooved ring. The open ends are placed in the same position, so that the double ring can be readily entered into the previously-closed link of the chain. The rings are now turned on each other, so that the open ends are on opposite sides of the compound ring, as is shown in Fig.

5. The two rings may be sprung into each other with the cut ends in opposite directions to form the completed link. A chain constructed of these double rings requires no soldering of the joint, and consequently no cleaning, recoloring, and repolishing, which soldered links require, thus causing great saving in the manufacture. The chain is as strong as the soldered chain, as the opening of either ring at the ends is resisted by the solid part of the other ring. The grooved ring may be made of precious metal and the inner ring of inferior metal of the same color. A peculiar and pleasing effect can be produced by making the two rings forming each link of different-colored metal.

65 The form of the links can be varied by winding the wires on arbors of different cross-section. The inner ring may be entirely embedded in the grooved ring.

70 The cross-section of the links may be varied to any desired form.

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

1. An ornamental chain composed of links consisting of an outer grooved ring and an inner ring secured in the groove of the outer ring, as described. 75

2. A link for an ornamental chain, consisting of an outer ring having a grooved cross-section and an inner ring, the joints of the two rings being placed in opposite points, as described. 80

3. A link for an ornamental chain, consisting of a grooved outer ring and an inner ring partly embedded in the groove of the outer ring, the inner portion of the inner ring being exposed to view, as and for the purpose set forth. 85

4. A chain made up of links each composed of an outer grooved ring and an inner ring partly or wholly embedded in the groove of the outer ring, as described. 90

JOSEPH E. CROOK.

Witnesses:

JOSEPH A. MILLER,
M. F. BLIGH.