(No Model.)

E. VIEILLE.

CHAIN.

No. 359,413. Patented Mar. 15, 1887.

Fig. 1.

Fig. 2.

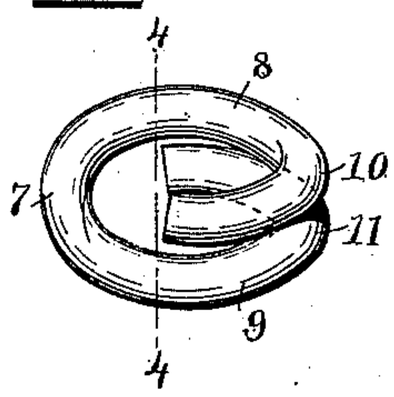


Fig. 3.

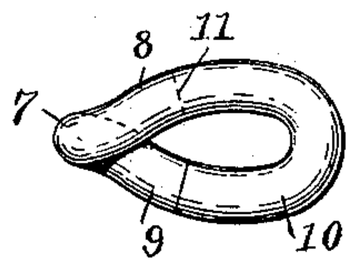
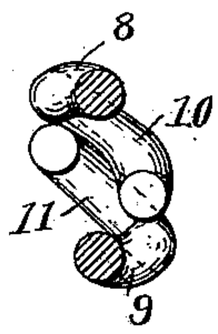


Fig. 4.



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EMILE VIEILLE, OF PROVIDENCE, RHODE ISLAND.

CHAIN.

SPECIFICATION forming part of Letters Patent No. 359,413, dated March 15, 1887.

Application filed September 9, 1886. Serial No. 213,071. (No model.)

To all whom it may concern:

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

This invention relates to a chain or a set of connected chain-links, and has especial reference to a curbed or twisted form of a chain and link for ornamental purposes.

The ordinary method of making curbed or twisted chains by forming the links flat and welding or soldering them and then twisting the chain to produce the curb or twist is an expensive method, and, moreover, is tedious and slow.

The objects of my invention are to provide a novel form of chain-link, and, further, to provide a curbed or twisted form of chain and a "fancy-curb chain," that may be constructed without welding or soldering and in a rapid manner.

To the above purposes my invention consists of the novel and peculiar construction and arrangement of the chain-link and chain, all as hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 represents a broad-side view of a peculiar form of chain, known as the "fancy-curbed," constructed from my novel chain-link. Fig. 2 represents an enlarged broad-side view of my novel form of chain-link. Fig. 3 represents a narrow-side view of Fig. 2. Fig. 4 represents a transverse sectional view of the link, taken on line 4 4, in Fig. 2.

In the said drawings like numbers of reference designate corresponding parts throughout.

Referring to the drawings, my improved form of chain-link 6 may be described as being constructed from a straight wire or metallic rod of a suitable length by first doubling or bending the wire a staple or **U** shape, so that the closed end or the bend 7 of the staple will compose the one coupling end and the side strands 8 and 9 of the staple will form the respective side bars of the link; second, by bending the ends of the strands 8 and 9 of the staple inwardly and oppositely to form the hooks 10 and 11, respectively. These hooks 10 and 11 together compose the remaining or second coupling end of the completed link 6. The bends or hooks 10 and 11 may lie in lateral contact, or nearly so, and may have their free ends slightly spaced from the respective and adjacent strands, 9 and 8. When the link 6 is formed as near flat, or with all the points thereof as nearly in the same plane as possible, the hooks or bends 10 and 11 will obviously lie in planes which intersect. The curb or twist is made in the bend 7 of the link by twisting the bend, as clearly shown in the drawings.

By virtue of my invention I am enabled to construct twisted or fancy-curbed forms of chains without welding or soldering the links. Further, I can make very fine and small link chains in an easy and rapid manner. In making the fine or small form of chain I shape the links first in their completed form, having a twist therein, and can then spring and couple the links together in an obvious manner. The larger sizes of chains may be constructed by making the wire to form the link into a pot-hook or **S** form, then bending the **S** form transversely upon itself at a point near the center of the middle strand of the **S** form, so that the said strand forms a large bend, and the end hooks or bends of the **S** form lie in lateral contact, or nearly so, and the bend in the middle strand of the **S** form will compose one coupling end, and the hooks of the **S** form will compose together the other coupling end. The next entering link is then formed into the **S** form, and is passed through the coupling end of the first link, formed of the two hooks described, until the said coupling end lies about the center of the middle strand of the entering **S** form, which is then flexed, as above described, for the first link.

In Fig. 1 is illustrated a portion of a chain, 12, made from my novel form of chain-link. This form of chain is what is known as a "fancy-curbed" chain, and can be readily constructed from my link, and may be finished by swaging in dies in a well-known manner.

There may be various modifications made in the construction of my improved form of chain-link without, however, substantially de-

parting from the spirit of the invention, as herein described and claimed.

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

1. A chain-link formed from a doubled wire, the closed end thereof forming one coupling end and the strands thereof forming the side bars of the link, the ends of said strands bent back upon the link and forming hooks disposed nearly in lateral contact and together comprising the other coupling end, substantially as described.

2. A chain-link formed of a staple-shaped or doubled wire, the closed end of the staple forming one coupling end and the side strands thereof forming the respective side bars of the link, each end of the staple bent inwardly over toward the opposite strand like a hook, the link formed curbed and the plane of the said hooks intersecting, substantially as described.

3. A chain-link formed of a wire made into a pot-hook or S form, the S form bent over transversely near the center of middle strand thereof, and the end bends or hooks of the S form making lateral contact or nearly so, the middle strand of the S form having a large bend, the link curbed, and the planes of the end bends or hooks of said form intersecting, substantially as described.

4. A chain constructed of a series of connected links formed of a doubled wire, the closed end thereof forming one coupling end and the side strands thereof forming the side bars of the link, the free ends of the strands bent inwardly and oppositely into hooks disposed nearly side by side and the hooks together, and forming the remaining coupling end, substantially as described.

5. The chain-link, as 6, formed with the twisted bend 7, the side bars 8 and 9, and the bends or hooks 10 and 11, substantially as described.

6. The chain 12, constructed from the chain-links 6, each formed with the twisted bend 7, the side bars 8 and 9, and the bends or hooks 10 and 11, substantially as described.

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Witnesses:

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