

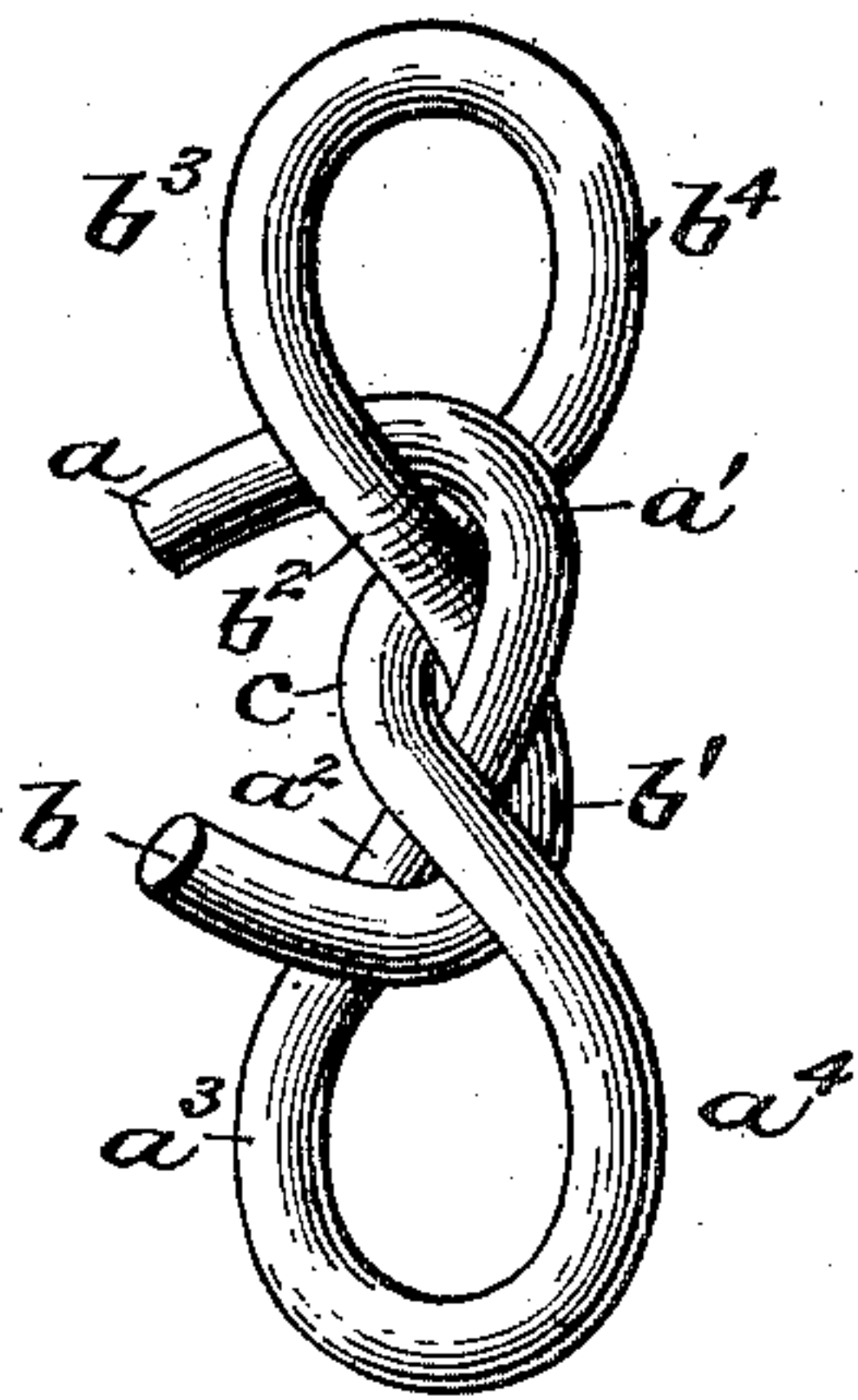
(No Model.)

W. H. GRIFFITH.  
CHAIN LINK.

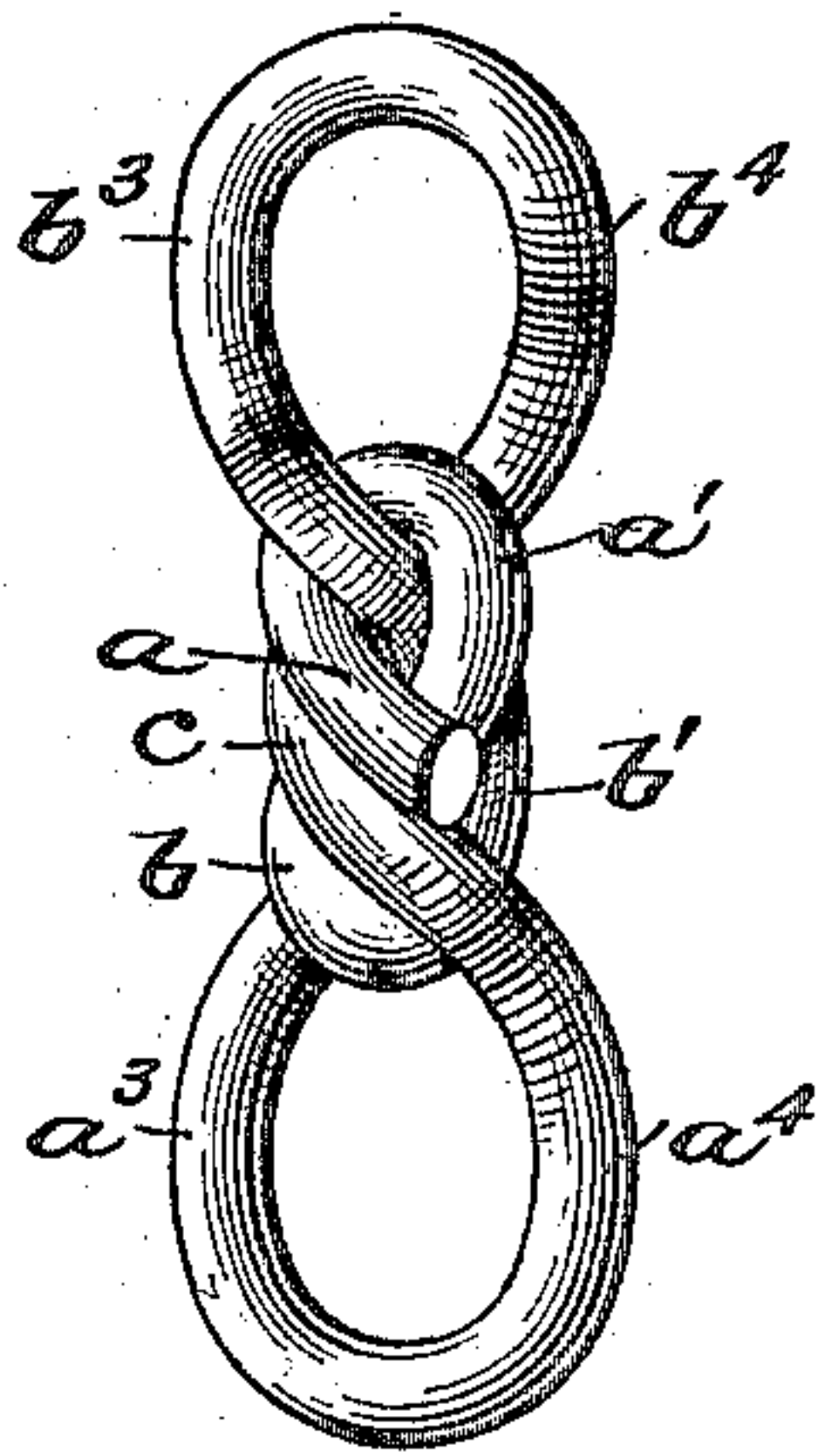
No. 599,233.

Patented Feb. 15, 1898.

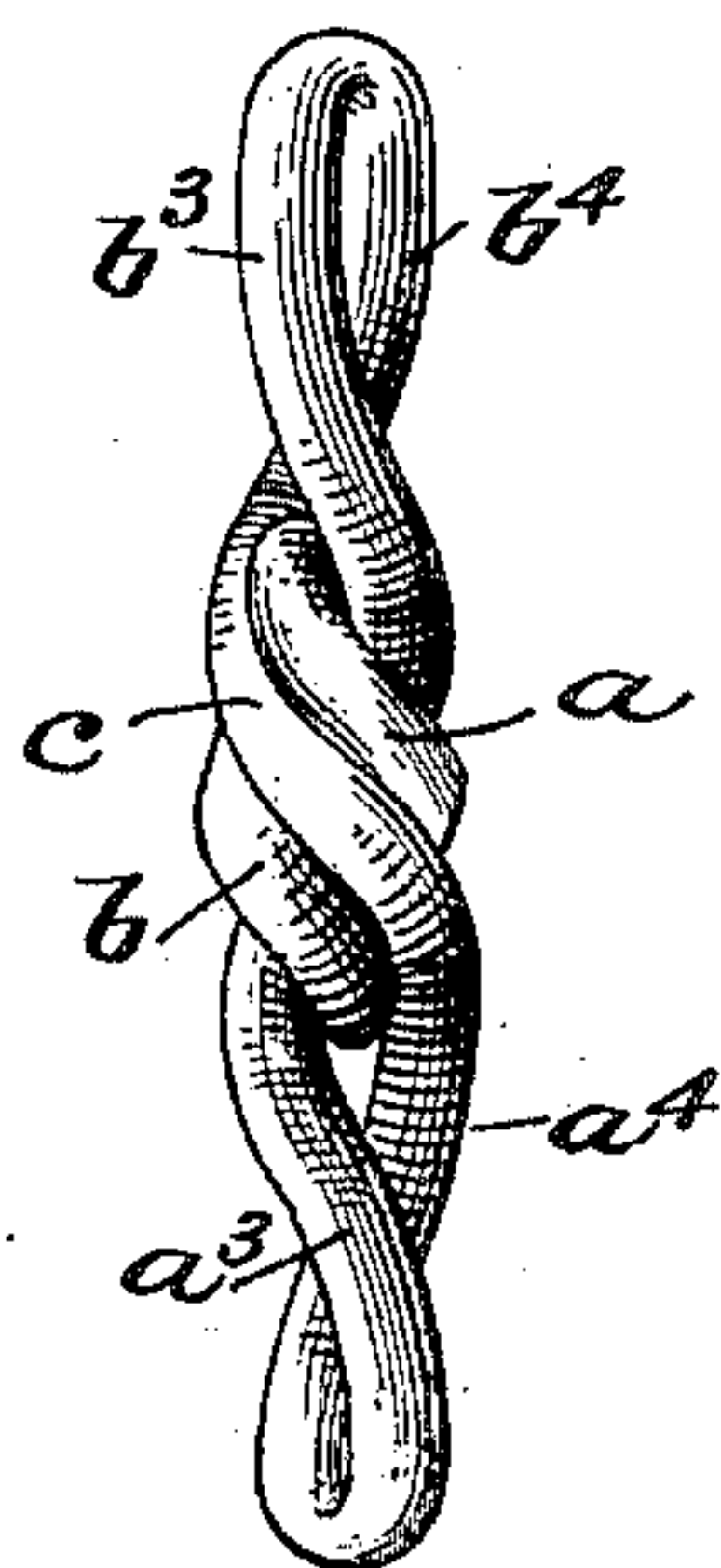
*Fig. 1.*



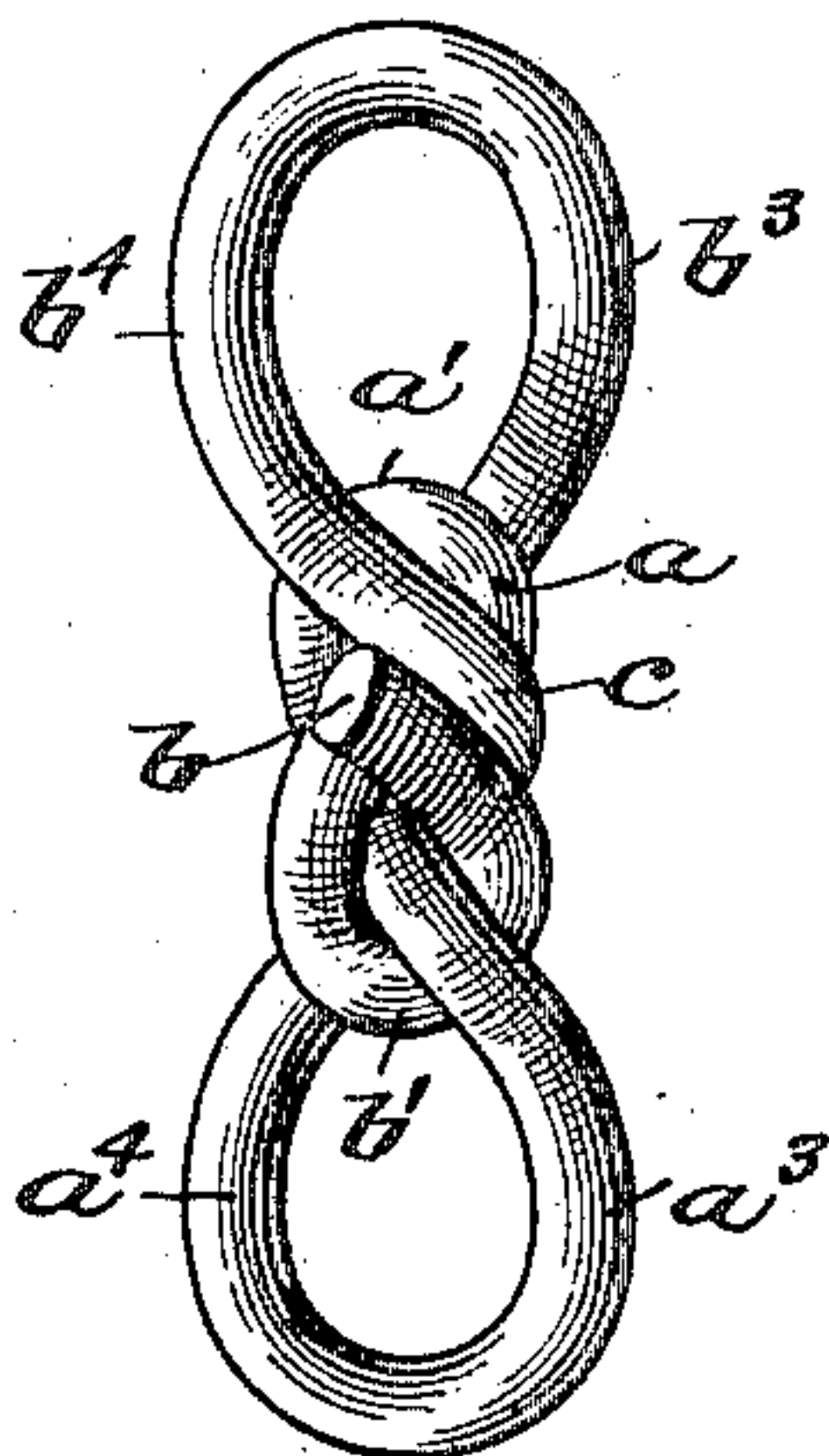
*Fig. 2.*



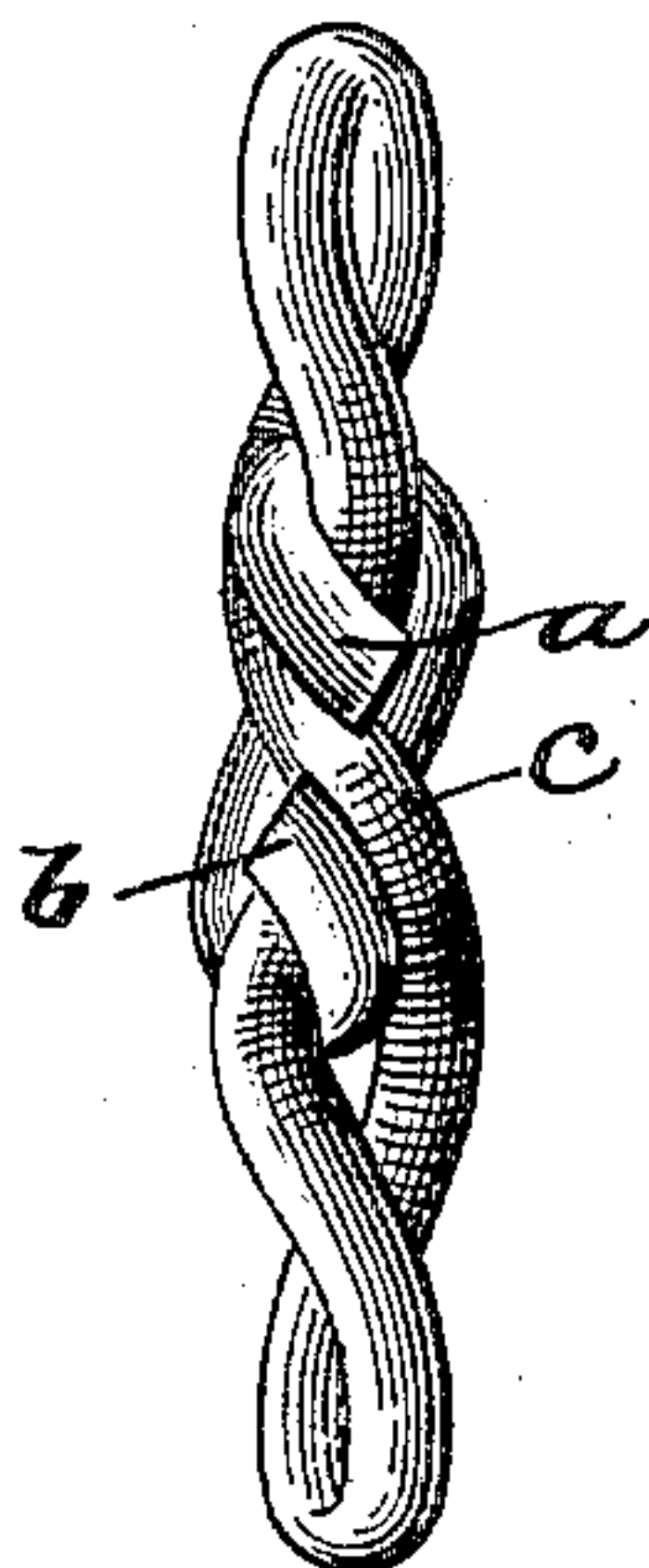
*Fig. 2<sup>a</sup>*



*Fig. 2<sup>b</sup>*



*Fig. 3.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM H. GRIFFITH, OF NEW YORK, N. Y.

## CHAIN-LINK.

SPECIFICATION forming part of Letters Patent No. 599,233, dated February 15, 1898.

Application filed July 2, 1897. Serial No. 643,193. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. GRIFFITH, of New York, in the county of New York and State of New York, have invented a new and useful Improvement in Chain-Links, of which the following is a specification.

My invention is in the nature of a new chain-link of the form known as the "figure-8" pattern and which is designed to provide a very strong, compact, and shapely link, as will be hereinafter more fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a front view of a link partly opened or just before receiving its final wrap. Fig. 2 is a front view of it completed. Fig. 2<sup>a</sup> is an edge view from the left-hand side of Fig. 2. Fig. 2<sup>b</sup> is a back view of Fig. 2, and Fig. 3 is an edge view of a slight modification.

The link is made of a single piece of wire bent to form a loop  $a^3 a^4$  at one end and another  $b^3 b^4$  at the other end. The ends  $a$  and  $b$  of the wire are interlocked with each other after the manner of a flat knot, as shown at  $a' b'$  in Fig. 1, and then are passed through the openings of the loops to the same side of the link and are each bent to form an eye, as follows, (see Figs. 2 and 3:)  $a$  is bent around the leg  $b^3$  of the loop and lies flat against, above, and substantially parallel with a spiral curve or bend  $c$ , which forms the middle part of the wire and extending into  $a^4$  and  $b^4$ . The other end of the wire  $b$  is bent around the leg  $a^3$  of the loop and lies flat against, below, and substantially parallel with the spiral curve or bend  $c$ . The middle part of the wire or the spiral bend  $c$ , it will be seen, is not surrounded or embraced by either of the terminal eyes, but simply lies in a spiral groove or depression between the two ends  $a$  and  $b$ . The spiral curve  $c$ , it will be seen, is a continuous extension of the leg  $a^4$  on one side of the link into the leg  $b^4$  of the other loop on the same side of the link.

When a tensile strain comes upon the link, the strain imparted to legs  $a^4 b^4$  simply tends to bring the spiral curve  $c$  closer in to the longitudinal axis of the link, while the strain on the legs  $a^3$  and  $b^3$  is distributed over a long bearing-surface back to the terminal

eyes  $a a'$  and  $b b'$ , which are tightly closed by the tensile strain, because the ends  $a$  and  $b$  are pressed by said strain in opposite directions against the spiral curve  $c$  of the middle part of the wire.

This makes a very strong link, and as the ends of the wire are sunken into the recesses formed by the various folds at the middle it is a very compactly-knotted link and one which is not liable to catch into or wear anything with which the chain may come in contact.

To prevent the spiral curve  $c$  of the middle part of the link from becoming dislodged from its seat by any outward movement, to which ordinarily it would not be subjected, I may as a modification (see Fig. 4) bring the ends  $a$  and  $b$  to terminate at a point near each other, slightly overlapping the wire at its middle bend  $c$ .

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

1. A link having loops at opposite ends, one side of one of which loops runs continuously into the same side of the other loop with a spiral curve, and with the other sides of the loops formed into terminal eyes, crossed upon each other within the spiral curve and formed into terminal eyes with the ends of said eyes lying substantially parallel with the spiral curve and upon opposite sides of the same, substantially as and for the purpose described.

2. A link having loops at opposite ends, one side of one of which loops runs continuously into the same side of the other loop with a spiral curve, and with the other sides of the loops crossed upon each other within the spiral curve and formed into terminal eyes with the ends of the said eyes lying substantially parallel with and upon opposite sides of the spiral curve of the middle of the link, and slightly overlapping the same to lock it in its seat substantially as and for the purpose described.

WILLIAM H. GRIFFITH.

Witnesses:

EDW. W. BYRN,  
SOLON C. KEMON.