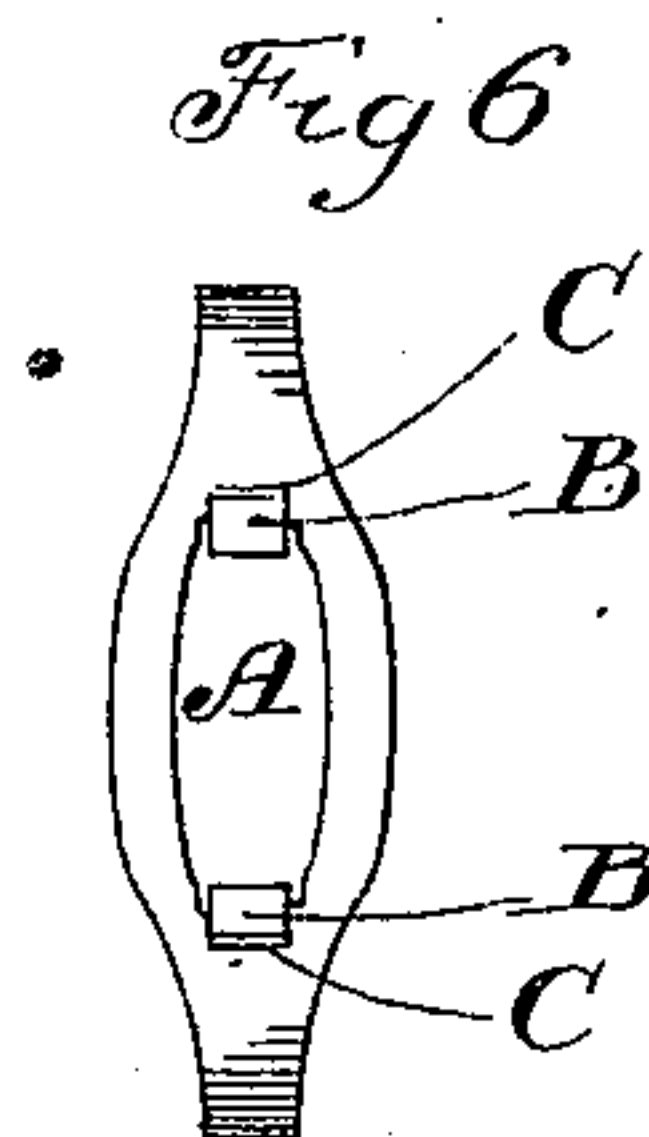
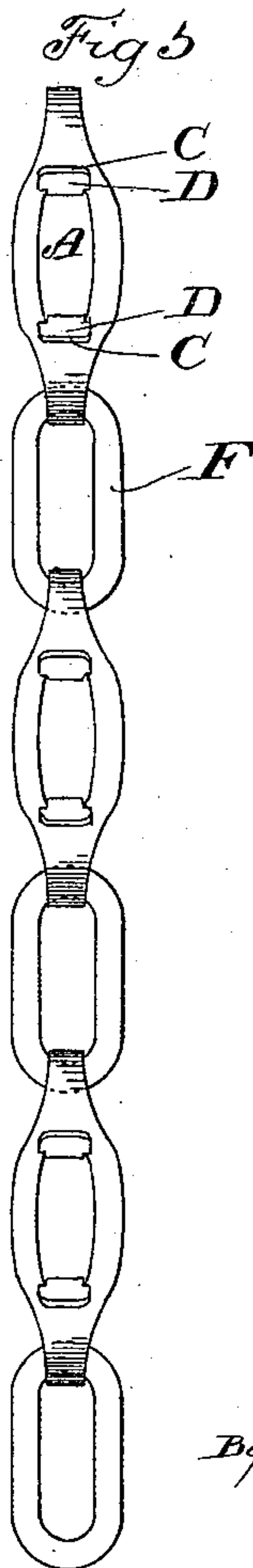
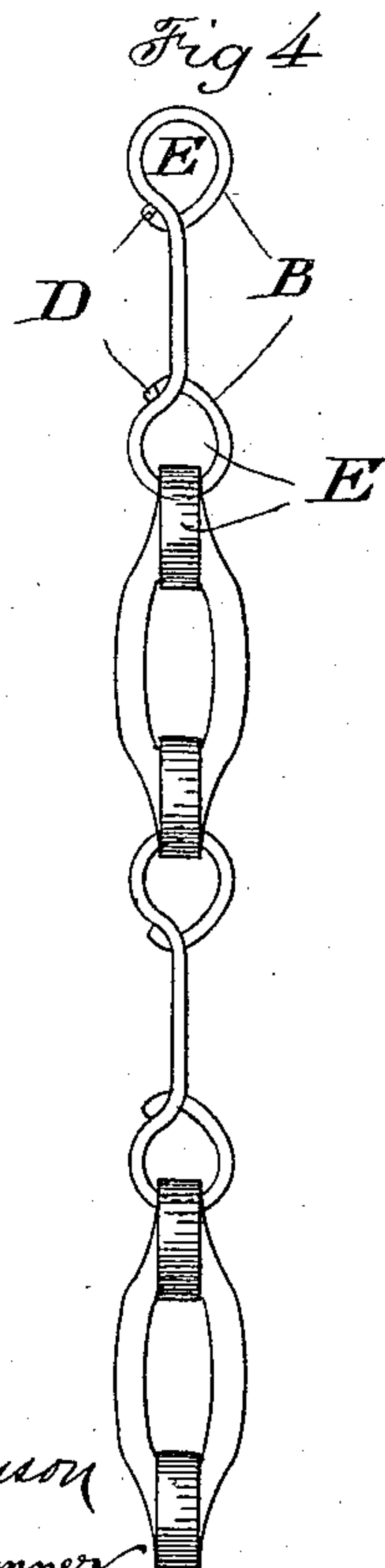
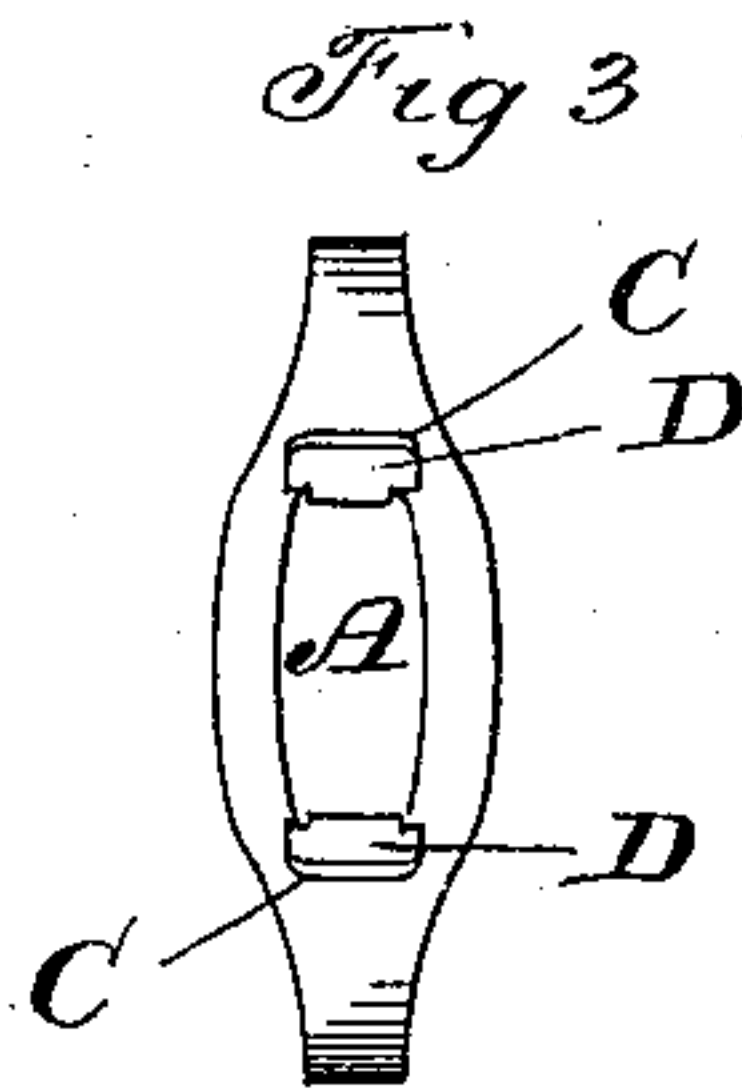
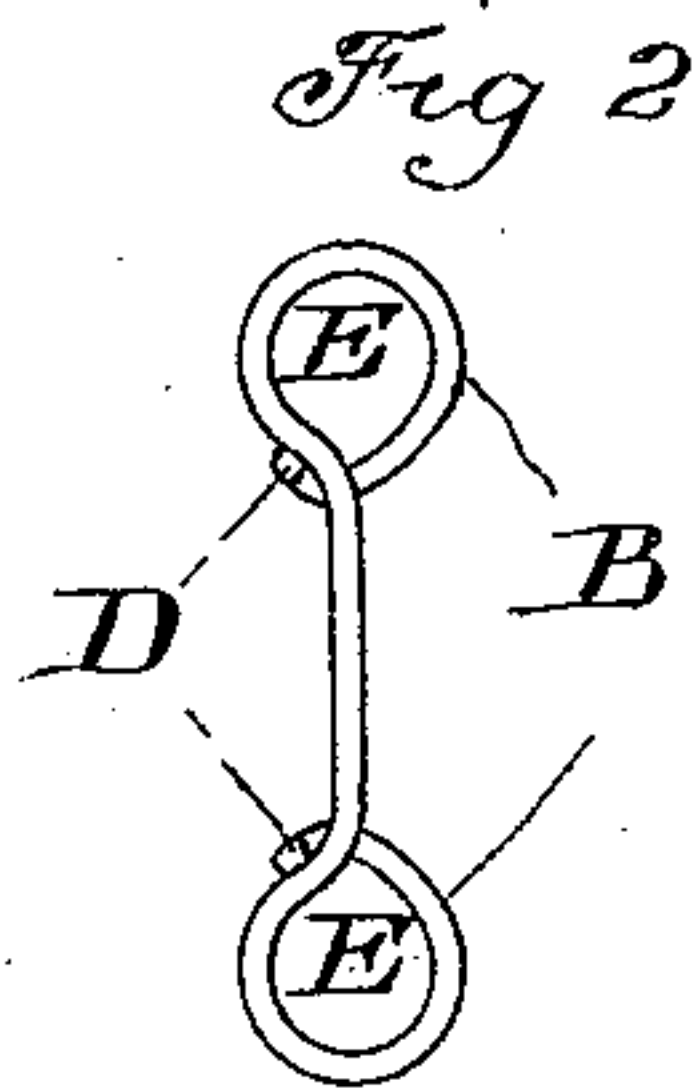
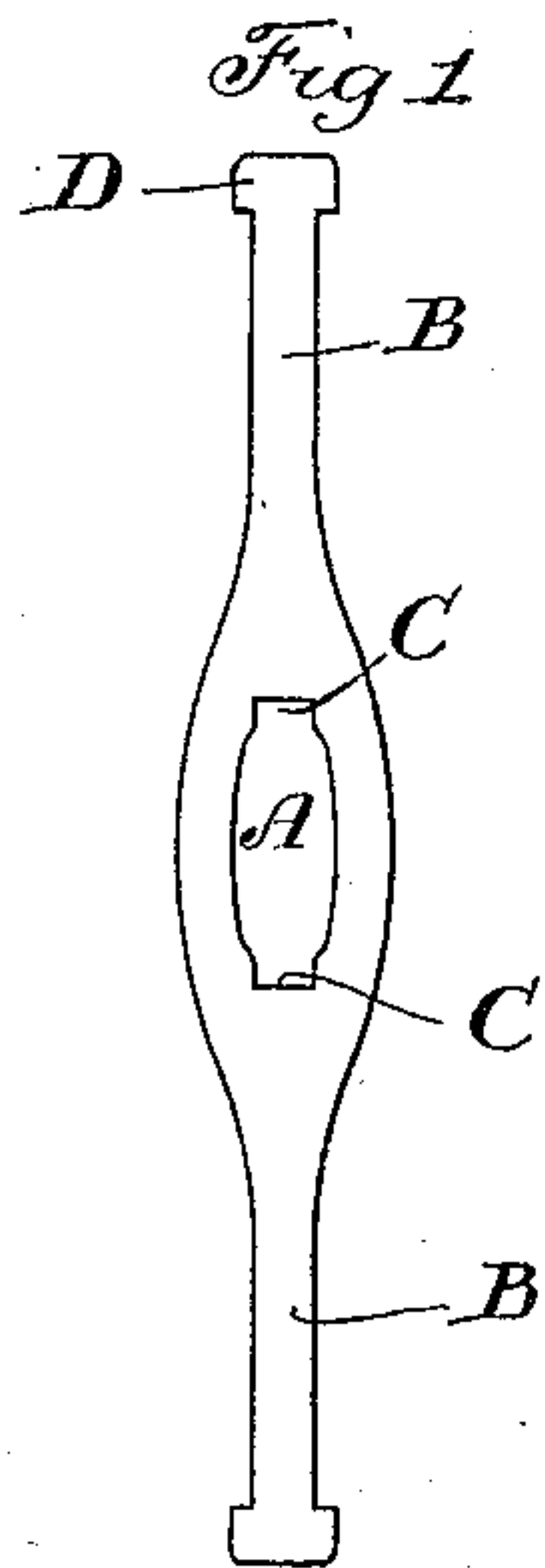


(No Model.)

F. EGGE.  
METAL CHAIN LINK.

No. 344,953.

Patented July 6, 1886.



Witnesses  
*S. Williamson*  
*E. Stewart Sumner*

Inventor  
*Frederick Egge*  
By *Smith Hubbard*  
*Atty's*

# UNITED STATES PATENT OFFICE.

FREDERICK EGGE, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE  
SMITH & EGGE MANUFACTURING COMPANY, OF SAME PLACE.

## METAL CHAIN-LINK.

SPECIFICATION forming part of Letters Patent No. 344,953, dated July 6, 1886.

Application filed November 25, 1885. Serial No. 183,996. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK EGGE, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Metal Chains; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain novel and useful improvements in metal chains, and has for its object to improve on the construction shown and described in my Letters Patent No. 330,214, granted November 10, 1885; and with these ends in view my invention consists in the details of construction and combination of elements hereinafter explained, and then specifically designated by the claim.

In order that those skilled in the art to which my invention appertains may understand the same, I will proceed to describe the same in detail, referring by letter to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a detail of the blank; Fig. 2, a side elevation showing the formation of a single link; Fig. 3, a plan view of the same; Fig. 4, a side elevation of a chain composed of links looped together. Fig. 5 shows a chain composed of the links connected together by separate rings; and Fig. 6 shows the link with the enlargement or head dispensed with.

Similar letters denote like parts in all the figures of the drawings.

The blank is formed with an eye or opening, A, in the central portion, the stock narrowing into shanks B from both ends of the said opening, as shown at Fig. 1. The opening A is narrowed at both ends, as seen at C, and the shanks are preferably made with enlargements or heads D, for the purpose presently explained.

In forming a link, both shanks are bent and curled backward to form loops E, (see Fig. 2,) and the ends of the shanks are passed through the opening A, and the heads D securely clamped back of the narrowed portion C, thus forming a double link from a single blank. In joining the links together, ordinary rings, F, (see Fig. 5,) may be used, or the links may be connected directly to each other by passing one of the shanks of a succeeding link through a previously-formed loop, and then bending and securing said shank in the manner above set forth.

In the manufacture of metal chains generally, the ends of the chain terminate in loops or eyes, and it is therefore impossible to connect separate pieces of chain, or to make an endless chain, without unbending the links or departing from the symmetry of the chain. My present improvement, having a double-ended blank, obviates this difficulty, and a great saving is thereby effected, since various odds and ends are thus utilized which would otherwise become mere scrap. The enlargement or head D on the end of the shank affords additional tensile strength, as it is a stop against the pulling apart of the loops; but a very strong chain may be made without this head, and I do not wish to be confined thereto.

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

As an improved article of manufacture, a chain-link formed from an elongated blank having a central opening and terminating in shanks, each shank being bent and curled back and secured as to its extremity within said opening, forming loops, the links so formed adapted to be secured together by interlooping or by rings, substantially as set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

FREDERICK EGGE.

Witnesses:

S. S. WILLIAMSON,  
H. F. NORCROSS.