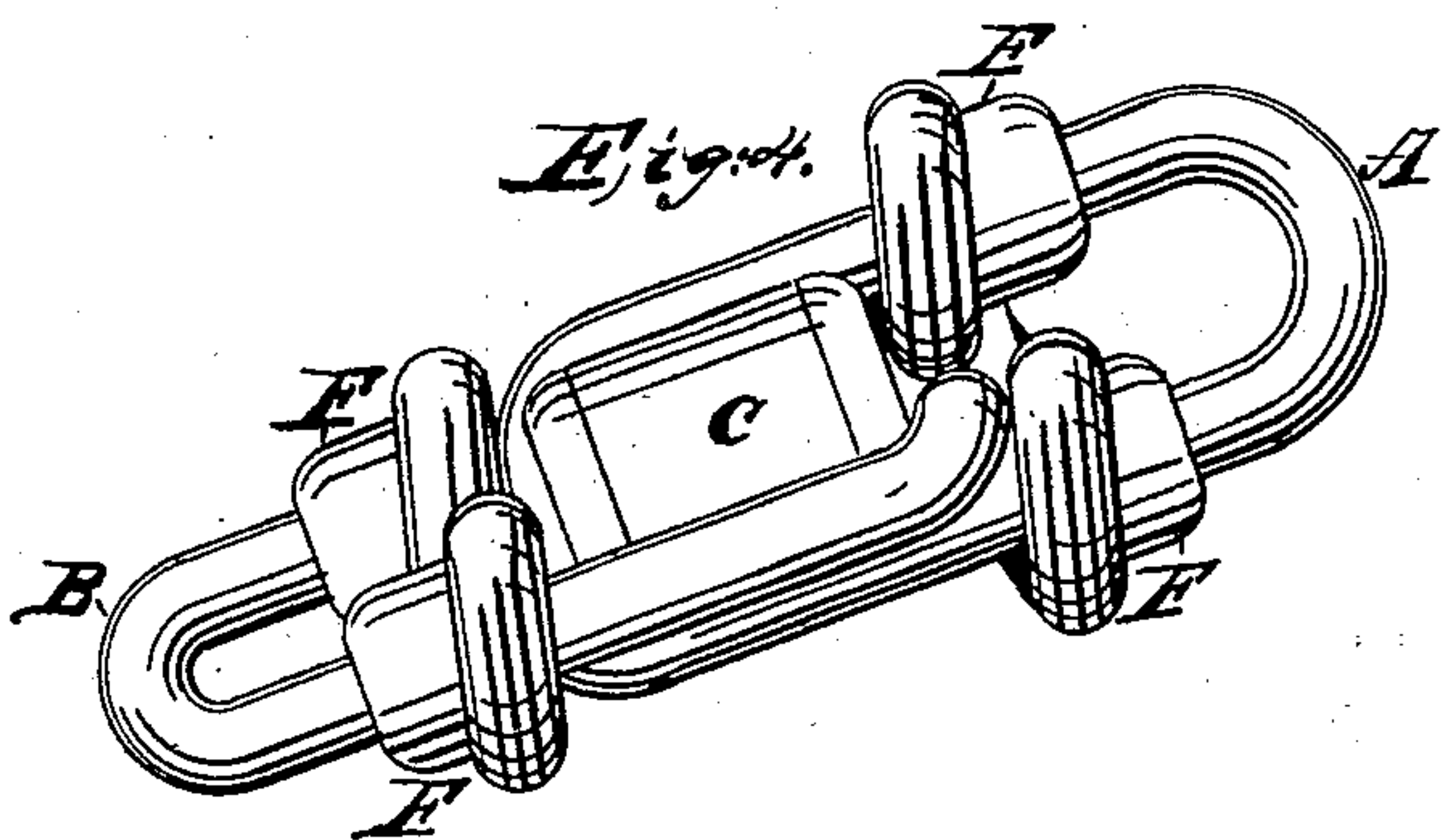
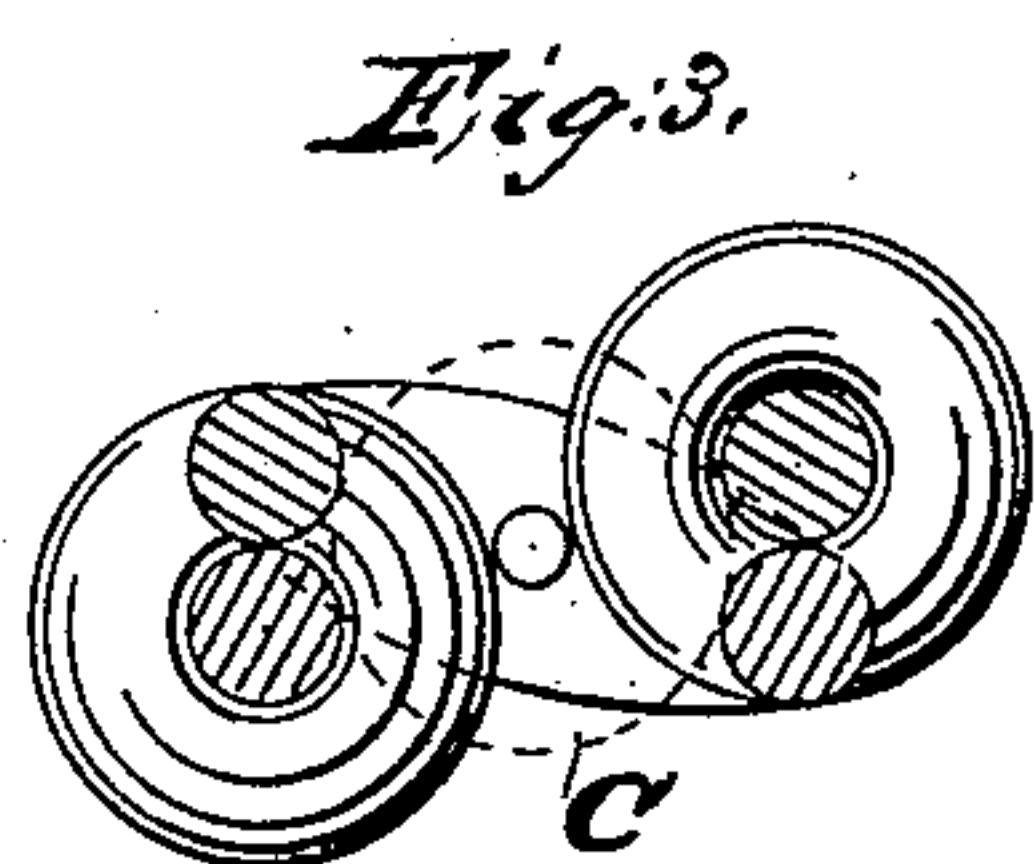
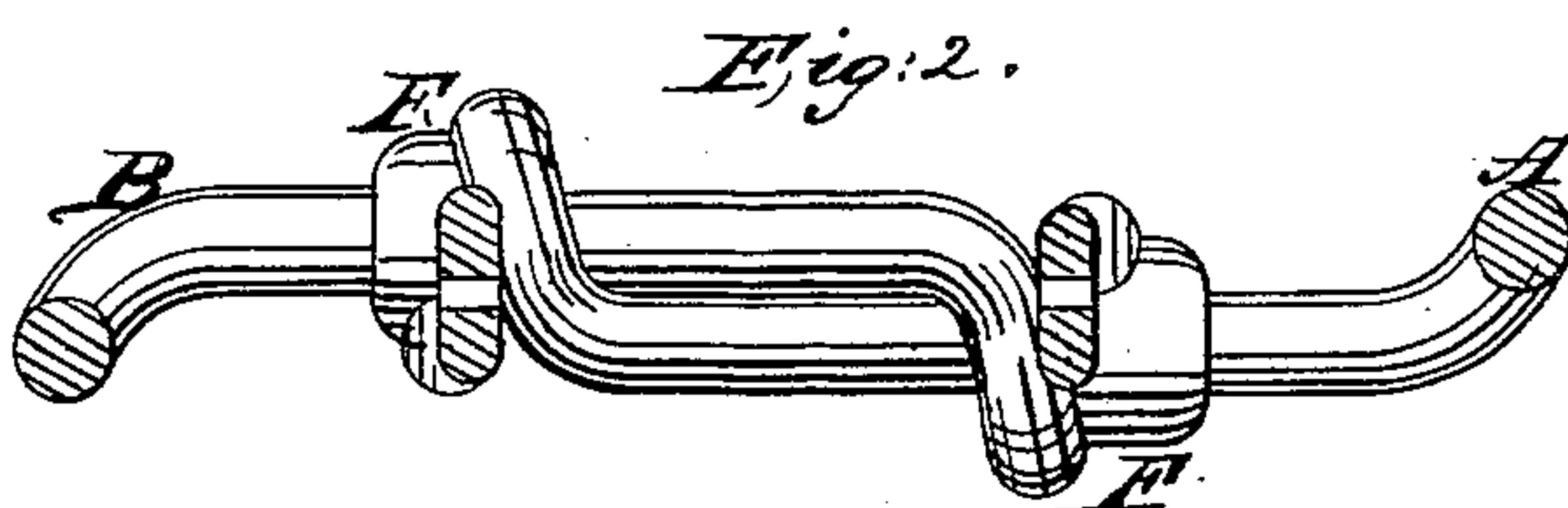
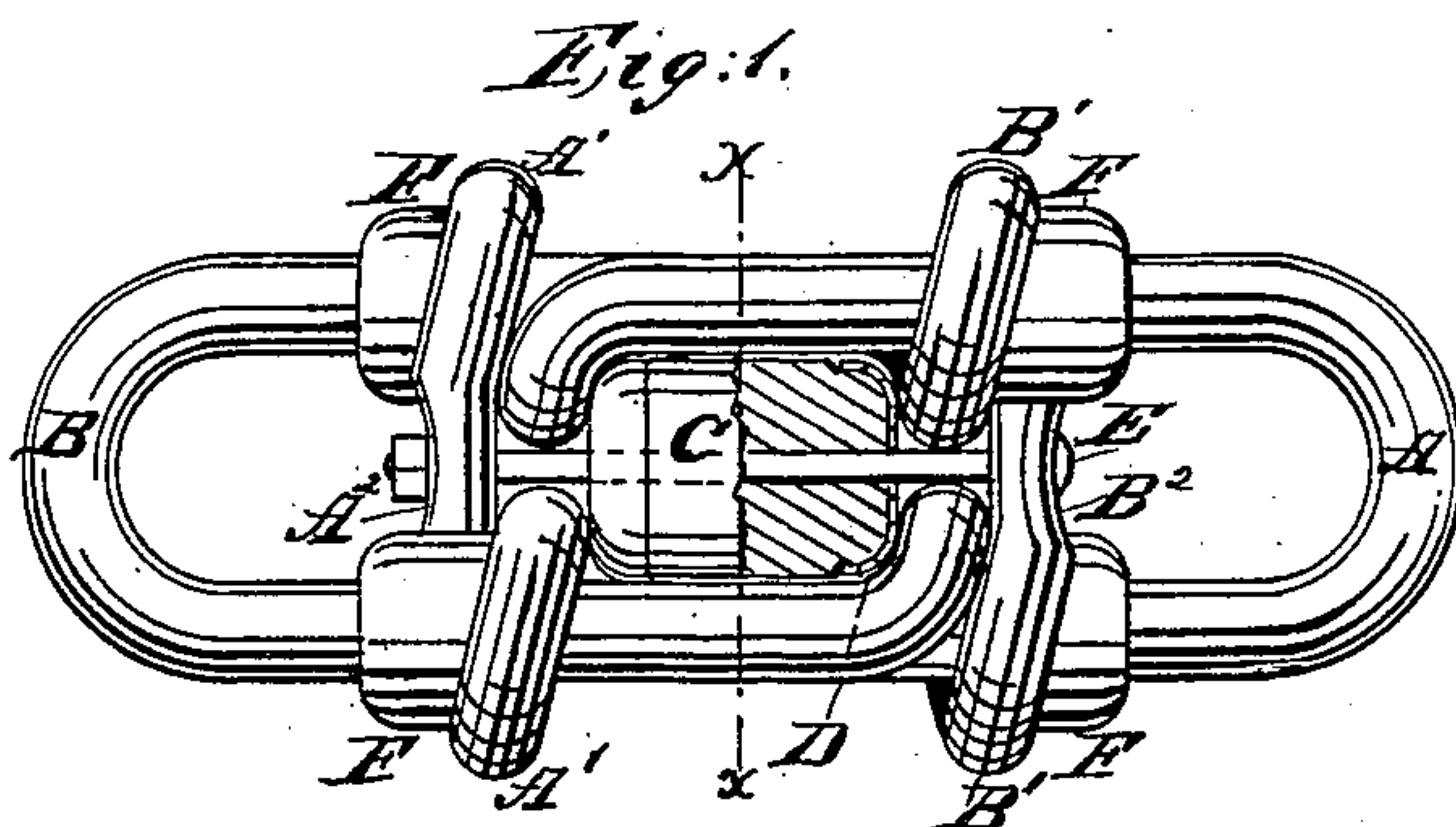


(No Model.)

A. W. PALMER.  
CAR COUPLING LINK.

No. 267,453.

Patented Nov. 14, 1882.



Witnesses:

*W. H. Morgan.*  
*S. H. Morgan.*

INVENTOR

*Albert W. Palmer.*  
*By A. P. Thayer.*  
*att'y*

# UNITED STATES PATENT OFFICE.

ALBERT W. PALMER, OF ORANGE, NEW JERSEY.

## CAR-COUPLING LINK.

SPECIFICATION forming part of Letters Patent No. 267,453, dated November 14, 1882.

Application filed December 9, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT W. PALMER, of Orange, Essex county, New Jersey, have invented a new and useful Improvement in Car-Coupling Links, of which the following is a specification.

My invention consists of the construction of car-coupling links capable of elastic extension and contraction by means of a contrivance of the same in two parts capable of moving or sliding on each other, with a spring between them to relieve the shocks of the sudden starts, all as hereinafter described, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of my improved coupling-link. Fig. 2 is partly a longitudinal section and partly a side view. Fig. 3 is a transverse section taken on the line *x x* of Fig. 1, and Fig. 4 is a perspective view.

The link is made of two individual parts, A and B, in the form of a common link, with one end open, as it is before welding. The open-ended bars are then bent into eyes A' and B', that are coiled around the bars of the said two parts A and B respectively, and then extended across the space between said bars and welded together at A<sup>2</sup> and B<sup>2</sup>, so that the bars of part A are confined in the eyes B' of part B, and the bars of part B are confined in the eyes of A' of part A, making a complete link, the two parts of which are capable of sliding lengthwise along each other.

Between the bars of the two parts of the link, also between the eyes and the cross-connections A<sup>2</sup> and B<sup>2</sup>, is a spring, C, preferably of rubber, confined by cups D and a pin, E, to cushion the thrusts of sudden starts on the

link and lessen the shocks, and outside or opposite to said spring the bars of the links are provided with collars F to limit the recoil of the spring and the back-thrusts on the link.

I do not limit myself to the employment of the pin E for holding the spring in the space between the bars, although I prefer it, for the bars of the two parts of the link may be made to accomplish the same by being bedded in grooves along the sides of the spring, the latter being of larger diameter, except where it is grooved, than the space between the bars.

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

1. A car-coupling link consisting of two individual U-shaped parts, A and B, connected together by members of each part being coiled around those of the other, and arranged in one and the same plane, suitably for the purposes of a car-coupling link, also to slide lengthwise on each other, and a spring, C, combined therewith, to cushion the extension of said parts, substantially as described.

2. The combination, in a car-coupling link, of the two parts A and B, having eyes A' and B' and cross-extensions A<sup>2</sup> and B<sup>2</sup>, the spring C, pin E, and cups D, substantially as described.

3. The combination, in a car-coupling link, of the two parts A and B thereof, having eyes A' and B', cross-extensions A<sup>2</sup> and B<sup>2</sup>, and the collars F, the spring C, and the pin E, substantially as described.

ALBERT W. PALMER.

Witnesses:

W. J. MORGAN,  
S. H. MORGAN.