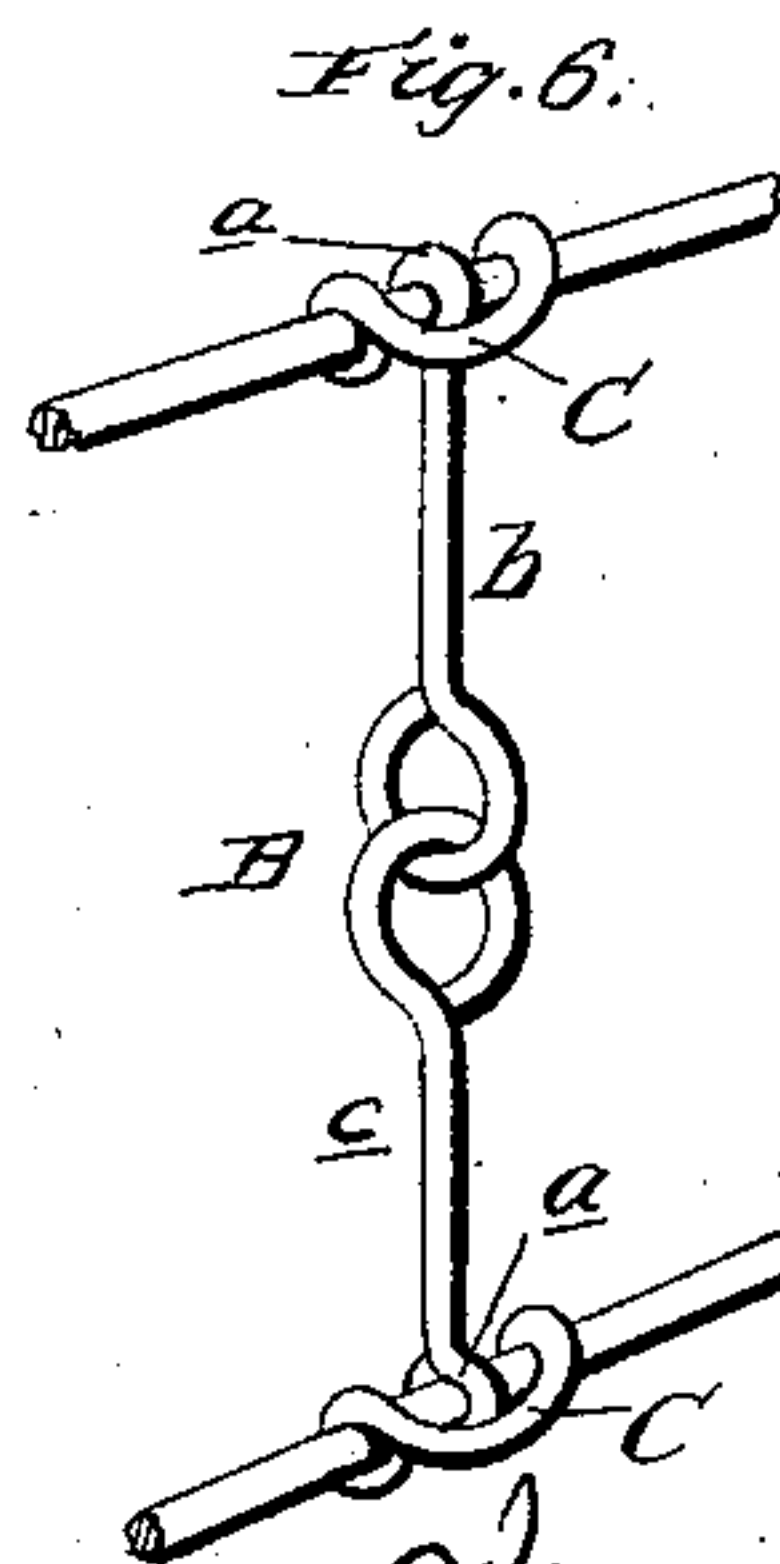
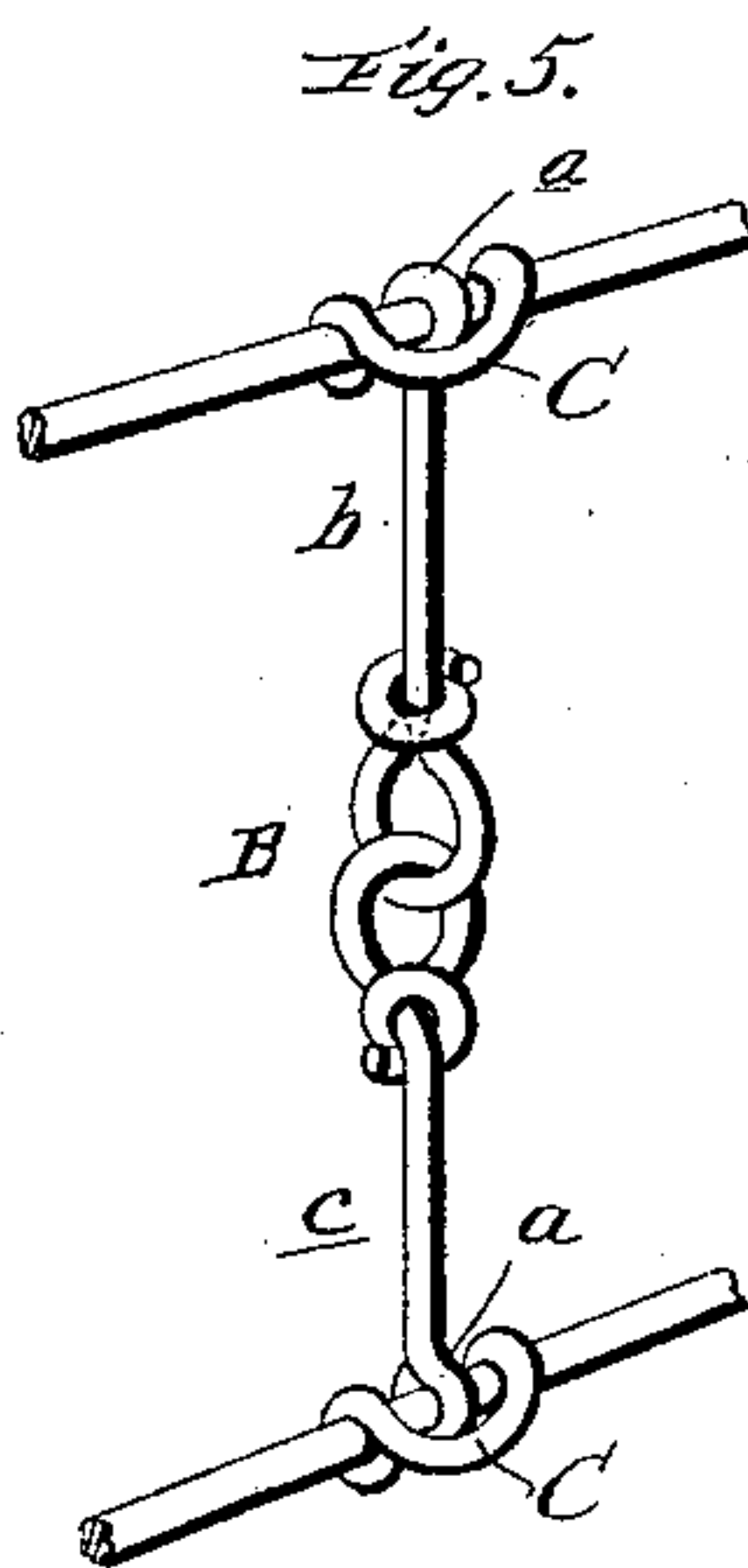
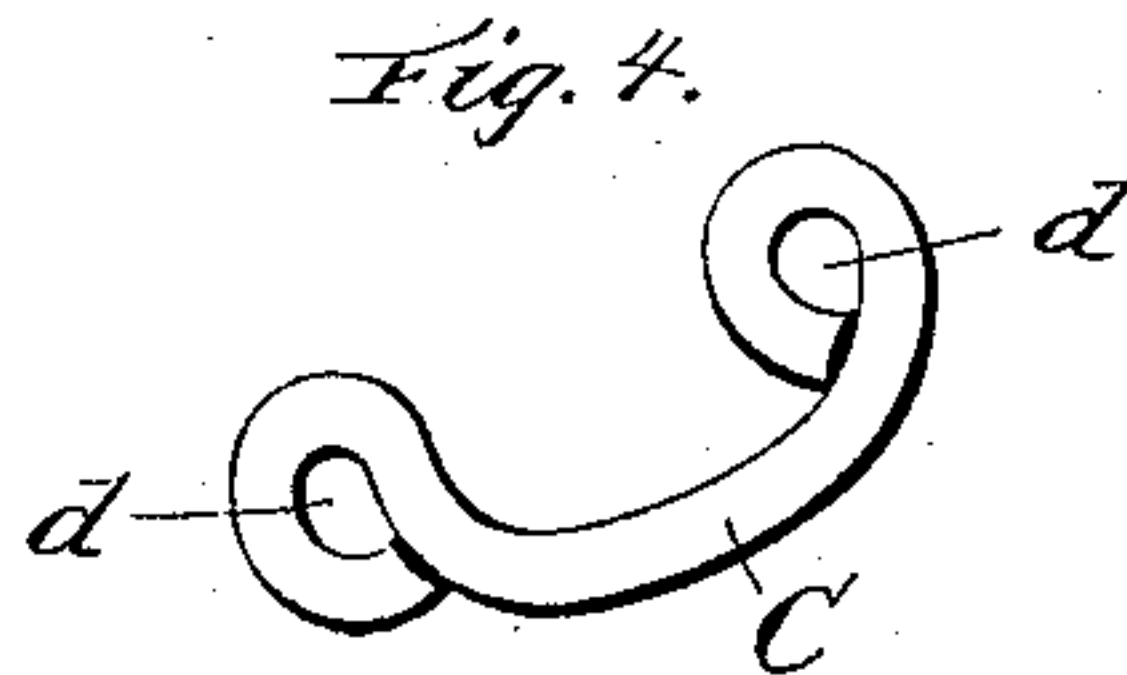
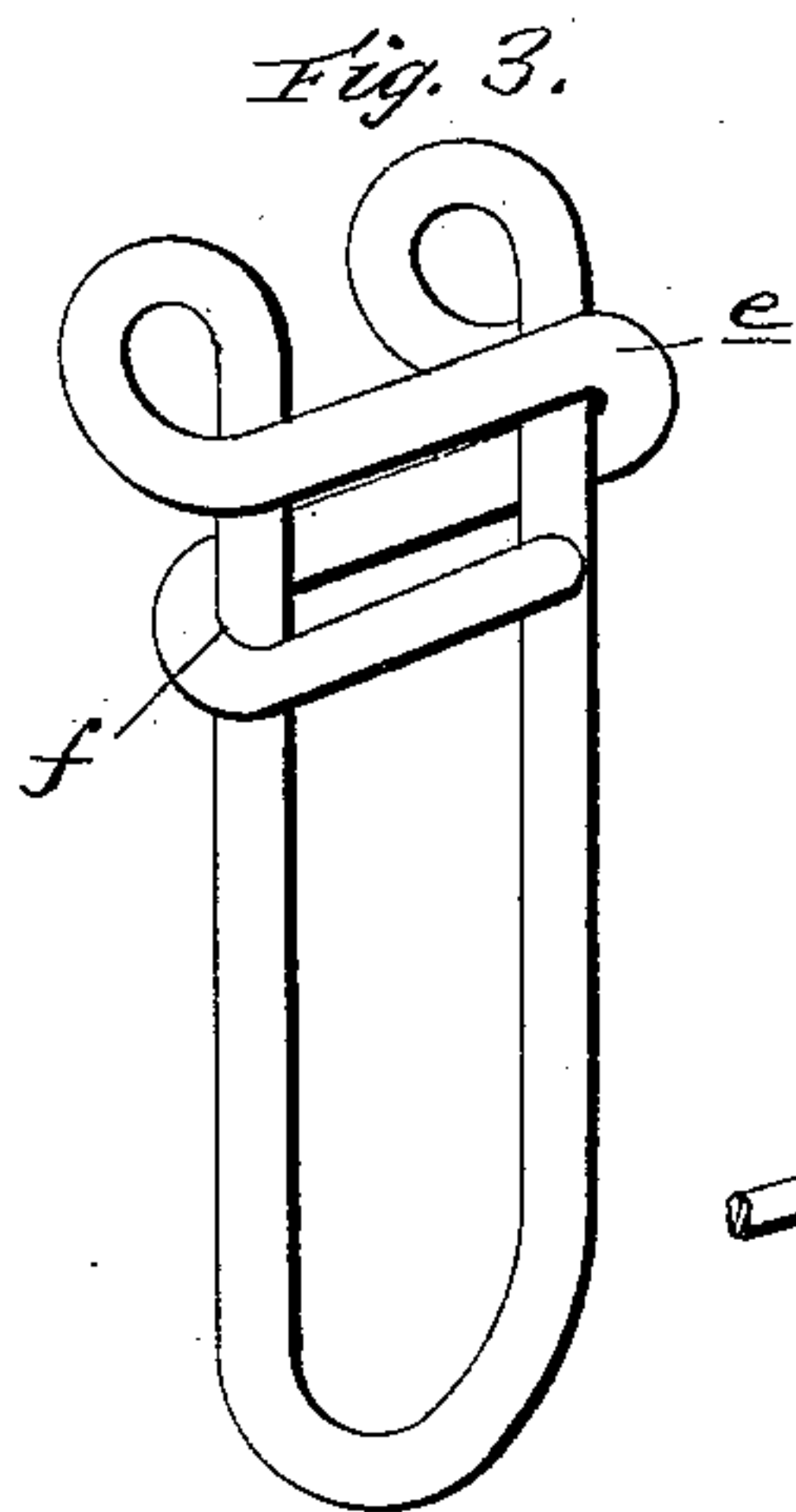
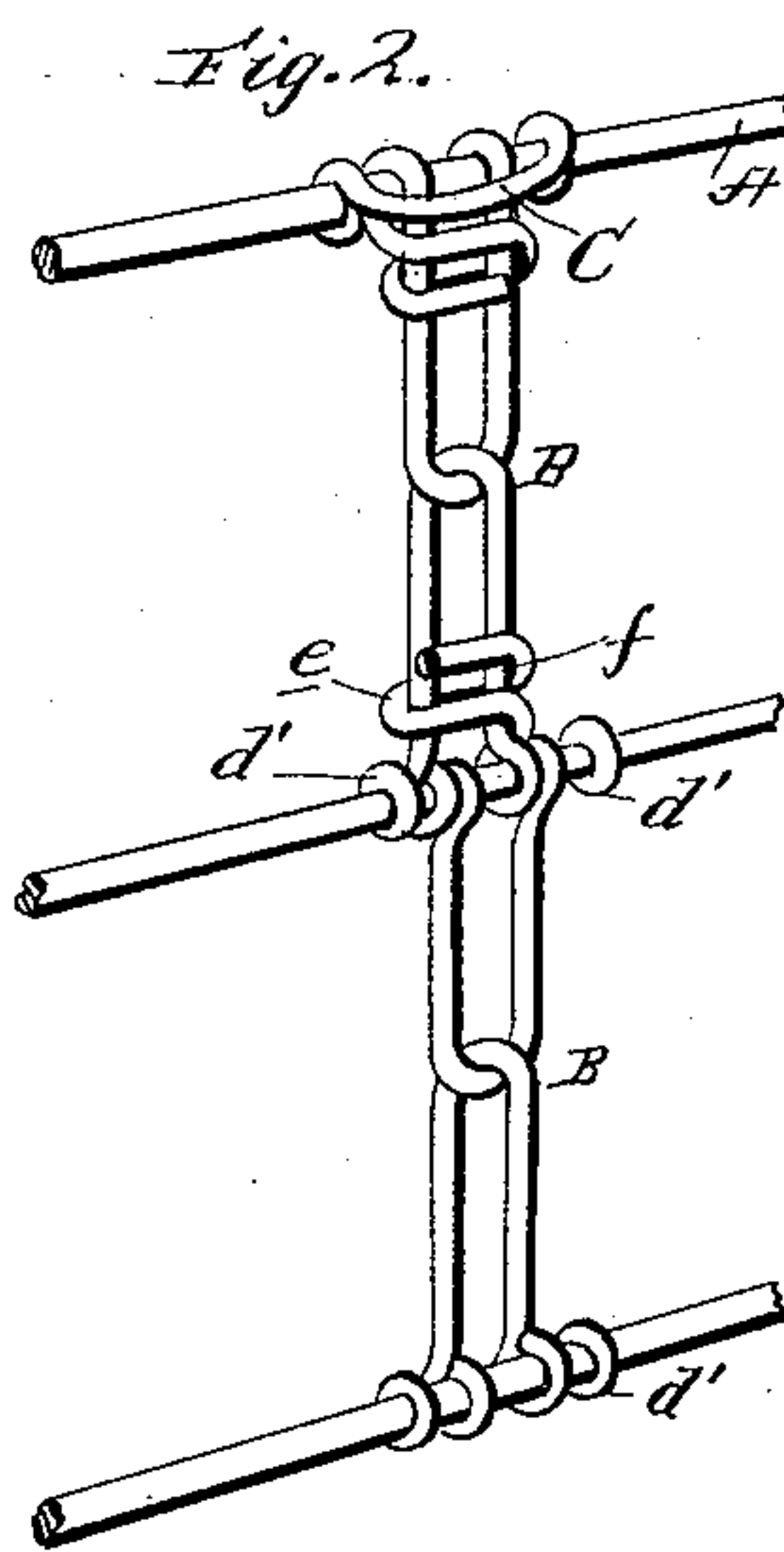
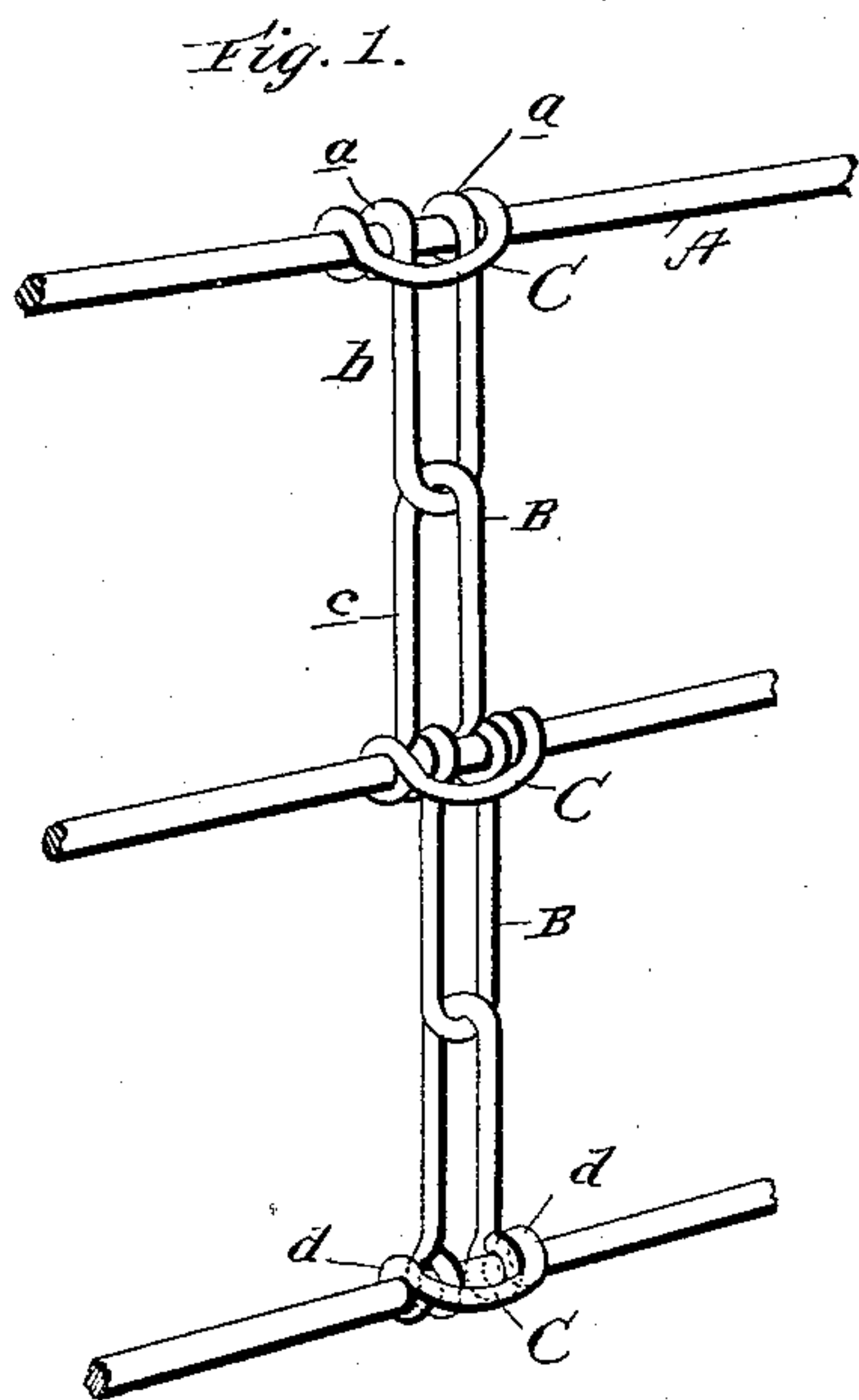


(No Model.)

I. K. HOLLINGER.  
WIRE FENCE.

No. 464,435.

Patented Dec. 1, 1891



Witnesses:  
C. H. Paeder.  
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Attorney

# UNITED STATES PATENT OFFICE.

ISAAC K. HOLLINGER, OF WEAVER'S STATION, OHIO.

## WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 464,435, dated December 1, 1891.

Application filed August 27, 1891. Serial No. 403,883. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC K. HOLLINGER, a citizen of the United States, residing at Weaver's Station, in the county of Darke and State of Ohio, have invented certain new and useful Improvements in Wire Fences; and I do 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.

This invention has relation to an improvement in stays for wire fences; and it has for its prime object to produce a stay of such a character as to form a link or loop connection between the runners, whereby both vertical and lateral motion of said runners may be allowed without bending or impairing the stay in any manner whatever.

A further object of the invention is to produce such a stay from wire or the like and provide a cheap and simple means for holding the same in proper position on the runners.

Other objects and advantages will appear from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1 is a perspective of a portion of three runners, showing my improved stay and holding or stop devices in position thereon. Fig. 2 is a similar view of a modification. Fig. 3 is a perspective view of one of the modified forms of stay removed from the runner. Fig. 4 is a perspective view of one of the stop devices, and Figs. 5 and 6 show constructions by which single wires are used for stays.

Referring by letter to said drawings, A indicates the runners of an ordinary wire fence, there being any suitable number employed, according to the height or size of the fence used.

B indicates my improved stay. This stay is formed from wire or other suitable material, wire being preferred for the sake of cheapness in manufacture. In constructing the stay I take a piece of wire of sufficient length and form on each end thereof an eye *a*, after which I bend the wire midway of its length into a U-shaped or looped form. Thus far I produce one half or section of the stay. I then take another piece of wire of a corresponding length and shape it in a similar

manner, thereby producing the other half or section of the stay.

In applying the stays the runners are passed through the eyes of one section or the eyes may be turned over the runners in applying the same to a fence. The other section of stay is then linked into the loop of first-named section and the next runner received in the eyes thereof. It will thus be seen that I have a loop or link connection formed in the stays between the runners; and it is obvious that any upward or downward pressure upon the runners will only tend to slacken said sections of stay, and when the runners are relieved from such pressure the stays will resume their normal positions. The same is true when the fence or stays are subjected to lateral strain, as the sections of stay will act as links, returning to a vertical position when relieved. In some instances the eyes on the sections *b* and *c* of the stays may be wrapped sufficiently tight upon the runners as to fix the same; but as it is desirable to have them hinged for the sake of allowing lateral play I have provided a stop to retain said stays from longitudinal movement upon the runners. This stop may be composed of a single piece of wire *C*, as better shown in Fig. 4 of the drawings, having an eye *d* at opposite ends and bent so as to embrace the runners and straddle the ends of the sections of stay, as shown. These stop devices, when used on the central or intermediate runners, are designed to straddle the connected ends of the stays, so that one stop device may be used for two sets of stays.

In Fig. 2 of the drawings I have shown collars *d'* fixed to the runners instead of the wire with eyes at opposite ends, and it is obvious that other means might be employed for preventing the stays from sliding upon the runners.

When it is desirable to utilize light wire, I make the stays in the form shown in Fig. 3 of the drawings. In making this form of stay the loop is formed and the eyes produced at each end thereof; but instead of cutting the wire after forming the last eye I form a transverse loop *e*, which embraces the branches of the main loop adjacent to the eyes thereof, as shown, and then reverse the opposite end or free branch of the wire and form another



loop *f*, so as to embrace the branches of the main loop from the opposite side, the transverse loops thus formed approximating a reversible **S**.

5 Another modification of my invention is shown in Fig. 5, in which construction I form the stay-sections from single wires, and instead of making elongated loops I provide eyes at their connections.

10 The construction in Fig. 6 differs from that shown in Fig. 5, in that the former has plain eyes linked together, while in the latter the wire, after the eyes have been formed, is coiled or twisted around the main branch, as shown.

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

1. In a wire fence, the combination, with the runners, of a stay secured thereto and a  
20 stop straddling the stay and secured on the outer sides thereof to a runner, substantially as specified.

2. In a wire fence, the combination, with

a runner, of the stay comprising two linked sections and a stop on the runner at each side  
25 of the stay, substantially as specified.

3. A stay for wire fences, formed from two pieces of wire bent in looped form and having eyes on the opposite ends of the branches of the loop and terminating in two reversibly-  
30 disposed transverse loops, which embrace the branches of a main loop adjacent to the eyes thereof, substantially as specified.

4. The combination, with the runners of a wire fence, of a stay composed of two wires  
35 bent in looped form and linked together and having their ends terminating in eyes to receive the runners and a stop for limiting the longitudinal play of the stays on the runners, substantially as specified.  
40

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

ISAAC K. HOLLINGER.

Witnesses:

JAS. H. BANKS,

WILLIAM H. GLUNT.