

J. B. COCHRAN.
DETACHABLE LINK.
APPLICATION FILED NOV. 18, 1908.

944,016.

Patented Dec. 21, 1909.

Fig. 1.

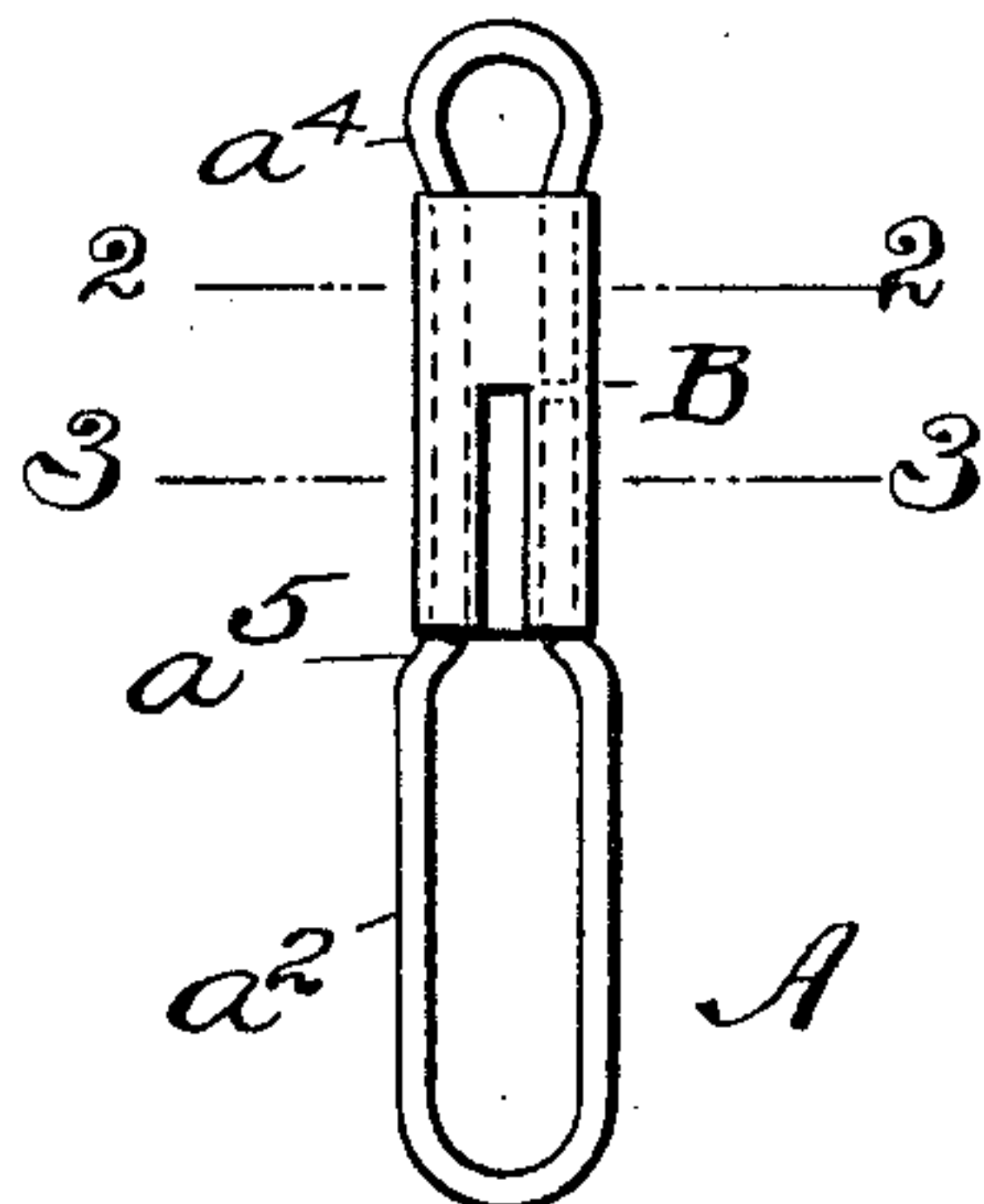


Fig. 2.

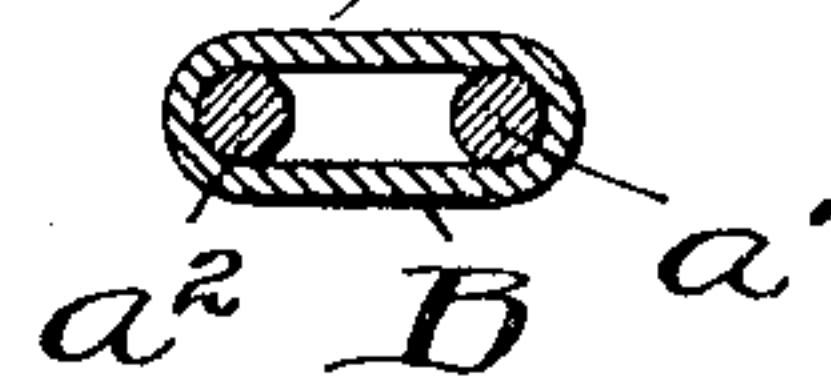


Fig. 3.

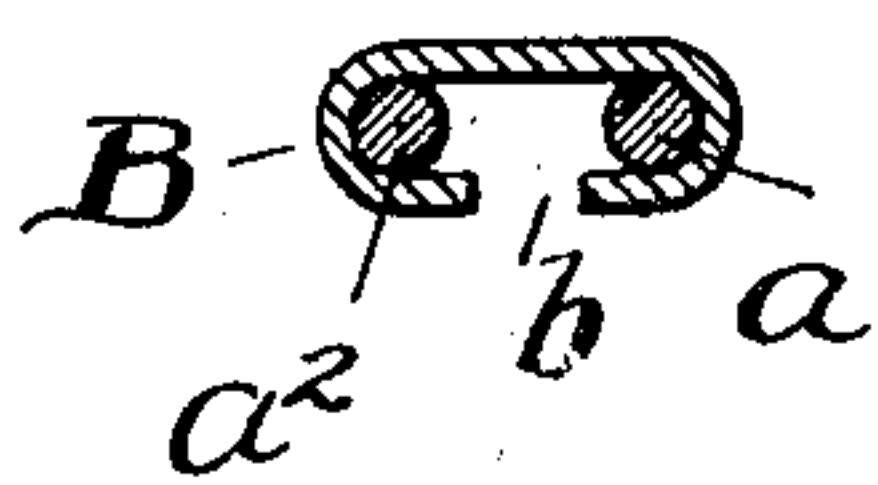


Fig. 4.

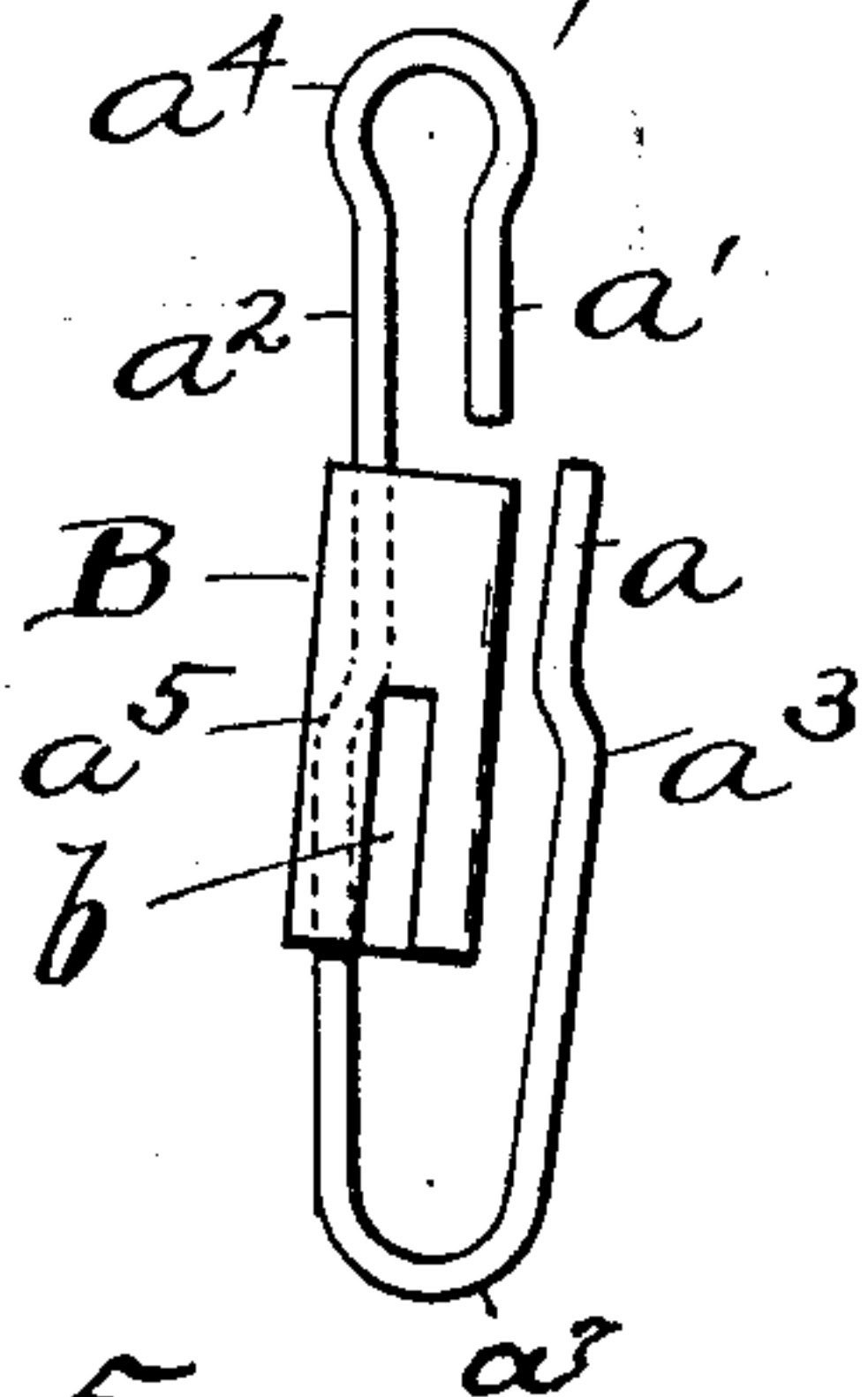


Fig. 5.

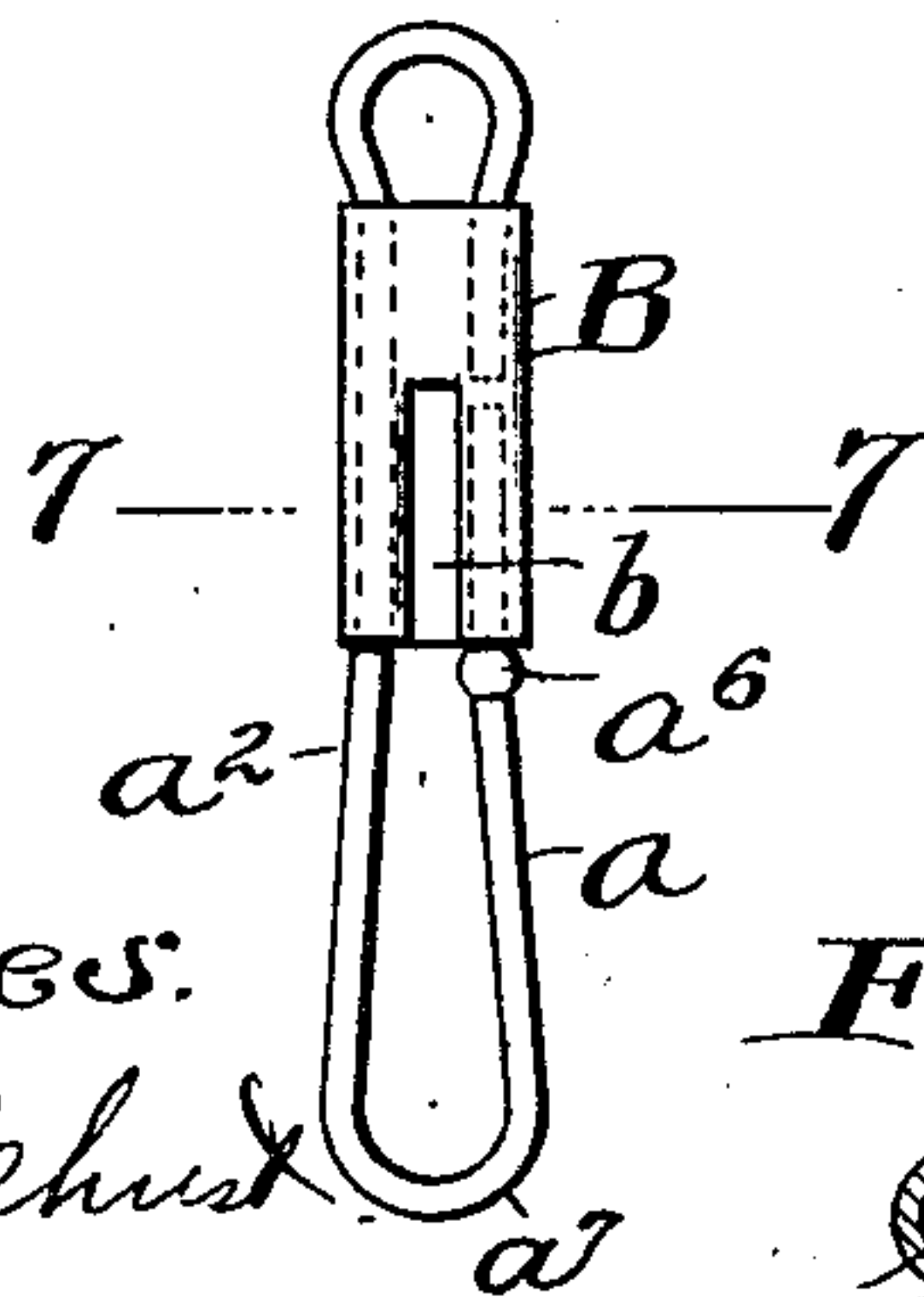
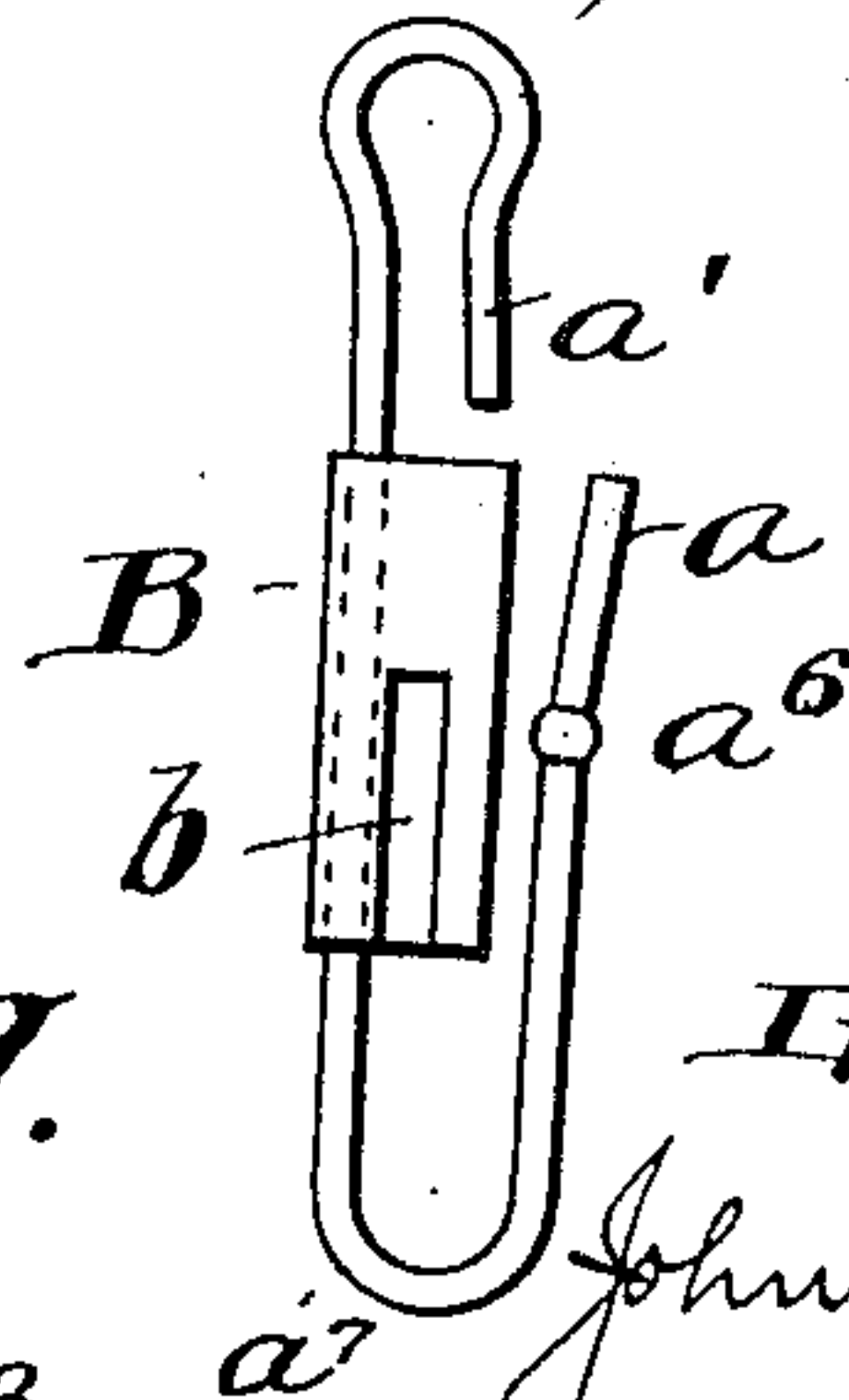


Fig. 6.



Witnesses:

C. B. Gilchrist

H. P. Sullivan

Fig. 7.



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UNITED STATES PATENT OFFICE.

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DETACHABLE LINK.

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To all whom it may concern:

Be it known that I, JOHN B. COCHRAN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Detachable Links, of which the following is a full, clear, and exact description.

The object of this invention is to provide a detachable link capable of being opened at both ends to permit of its ready connection to and disconnection from other links or rings or the like, but which, when closed, is securely locked against accidental displacement of the parts which will permit either end to open.

The invention is especially intended for use as a means for quickly connecting or disconnecting two parts of fishing tackle, as, for example, a swivel and a hook, but it is also adapted for a variety of other uses.

In the drawing, Figure 1 is an elevation of my improved link in its best form when closed. Figs. 2 and 3 are respectively transverse sectional views on lines 2—2 and 3—3 of Fig. 1. Fig. 4 is an elevation of said link shown in Fig. 1 when open at both ends. Fig. 5 is an elevation of a modified form of the invention when closed; and Fig. 6 is an elevation showing the same form of the invention when opened. Fig. 7 is a transverse sectional view on line 7—7 of Fig. 5.

Referring to the parts by letters A represents an elongated link formed of spring wire bent into substantially the form shown. One side of the link is parted to form the two spring tongues a , a' .

B represents a lock in the form of a sleeve permanently embracing the side a^2 of the link and capable of freely moving lengthwise thereon, said sleeve being adapted also to embrace the ends of the two spring tongues a , a' and hold them closed. In the flat front of the sleeve B is a longitudinal slot b extending from the lower end for about half the length of the sleeve. Fig. 4 shows the link when open at both ends. To close it, the tongue a' is sprung inward and the sleeve pushed up over said tongue. Then tongue a is sprung inward and introduced into the sleeve through the slot b therein. Said tongue is then allowed to spring outward in said sleeve. Now, in order to prevent this locking sleeve from moving lengthwise of the link and thereby accidentally releasing one or the other of the

spring tongues a , a' , the tongue a is provided with a shoulder a^3 adapted, when said tongues are in the embrace of the sleeve, to engage with the lower end of the sleeve and prevent the same from moving endwise along the link. As shown in Figs. 1 and 4 the shoulder is formed by bending the wire slightly outward below the sleeve. The upper end a^4 of the link is bent outward to form an eye, as shown, somewhat wider than the hole through the sleeve, thereby forming shoulders which prevent the sleeve from moving endwise off of this end of the link. The loop or eye a^7 at the lower end of the link is also formed, as shown, so that it is wider than the hole through the sleeve B. It will be understood from the foregoing, therefore, that when once the sleeve B is placed in the described position embracing the side a^2 of the link, it is not possible at any time to remove it therefrom. The loop a^7 prevents the sleeve from moving downward off of the lower end of the link. The loop a^4 prevents it from moving upward off of the upper end of the link, and likewise prevents any such movement upward as will permit the lower end of the sleeve from moving past the upper end of the spring tongue a . The shoulder or shoulders a^3 , a^5 or a^6 , as the case may be, prevents any such downward movement of the sleeve when it is embracing both spring tongues as will free the upper spring tongue a' . It will also be noted in Figs. 1 and 4 that the side a^2 of the link is also provided with an outwardly bent kink or shoulder a^5 . This is perhaps not essential, but it does help to prevent the downward endwise movement of said sleeve upon the link, and likewise makes the link symmetrical and therefore more satisfactory for its intended use.

In the form of the invention shown in Figs. 5, 6 and 7 the wire forming the sides of the link are not bent outward to form shoulders, but, instead, the required shoulder is formed by an enlargement a^6 on the spring tongue a in a position to engage with the lower end of the sleeve. This enlargement may be formed by upsetting the wire, or by a drop of solder secured thereon or in any other way. In other respects the device is substantially like that shown in Figs. 1 and 4 except that the lower end of the sleeve B at the left side of the slot b is bent around the side a^2 so as to hold it in proper operative position thereon.

Having described my invention, I claim:

1. A detachable link comprising a single piece of wire bent to form an elongated link having one side parted to form two flexible
5 tongues and having widened out loops at both ends, combined with a sleeve-like lock embracing and slidably mounted upon the unparted side of the link, and having in its
10 side a slot through which the lower tongue may be introduced into the embrace of said sleeve,—the width of said sleeve being less than the width of the two loops at the ends
of the link whereby the removal of the locking sleeve from the link is not possible.

15 2. A detachable link comprising a single piece of wire bent to form an elongated link having one side parted to form two flexible tongues and having widened out loops at both ends, combined with a sleeve like lock

embracing and slidably mounted upon the 20 unparted side of the link, and having in its side a slot through which the lower tongue may be introduced into the embrace of said sleeve,—the width of said sleeve being less than the width of the two loops at the ends 25 of the link whereby the removal of the locking sleeve from the link is not possible, and the lower spring tongue having a shoulder in position to engage with the lower end of said sleeve when the same is embracing 30 both spring tongues.

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

JOHN B. COCHRAN.

Witnesses:

H. R. SULLIVAN,
E. L. THURSTON.