

No. 767,073.

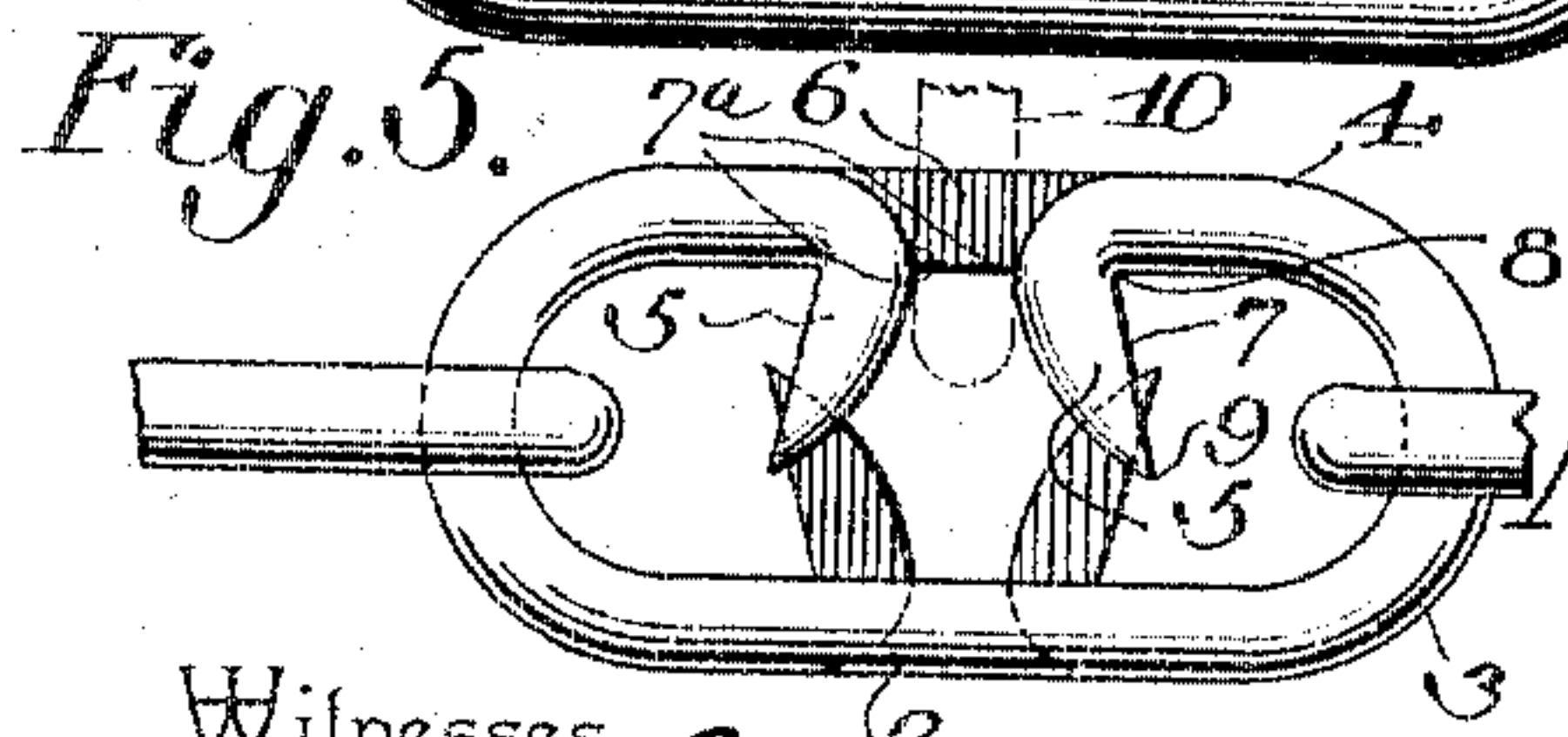
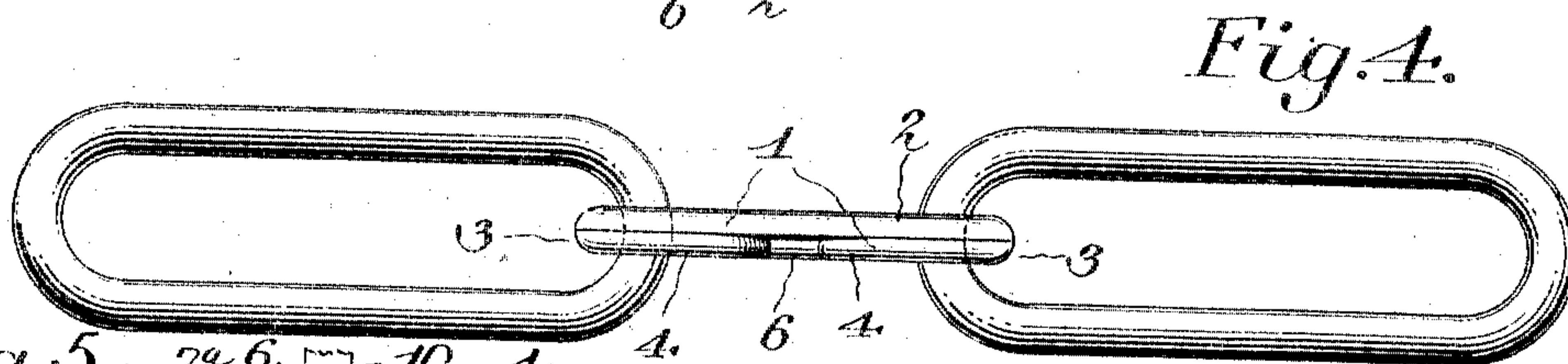
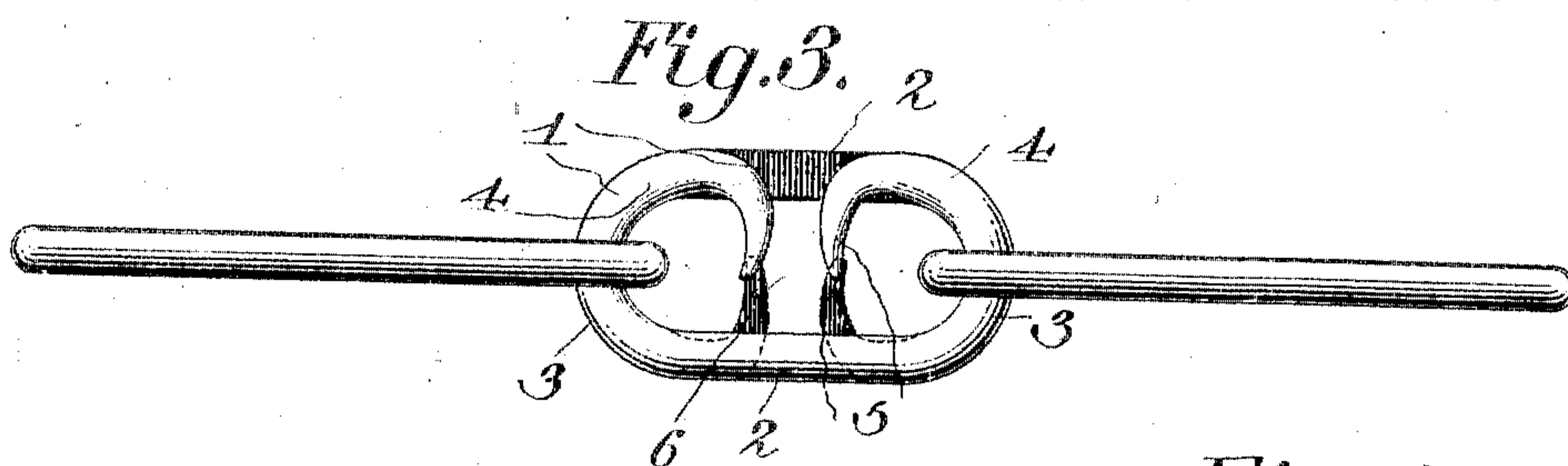
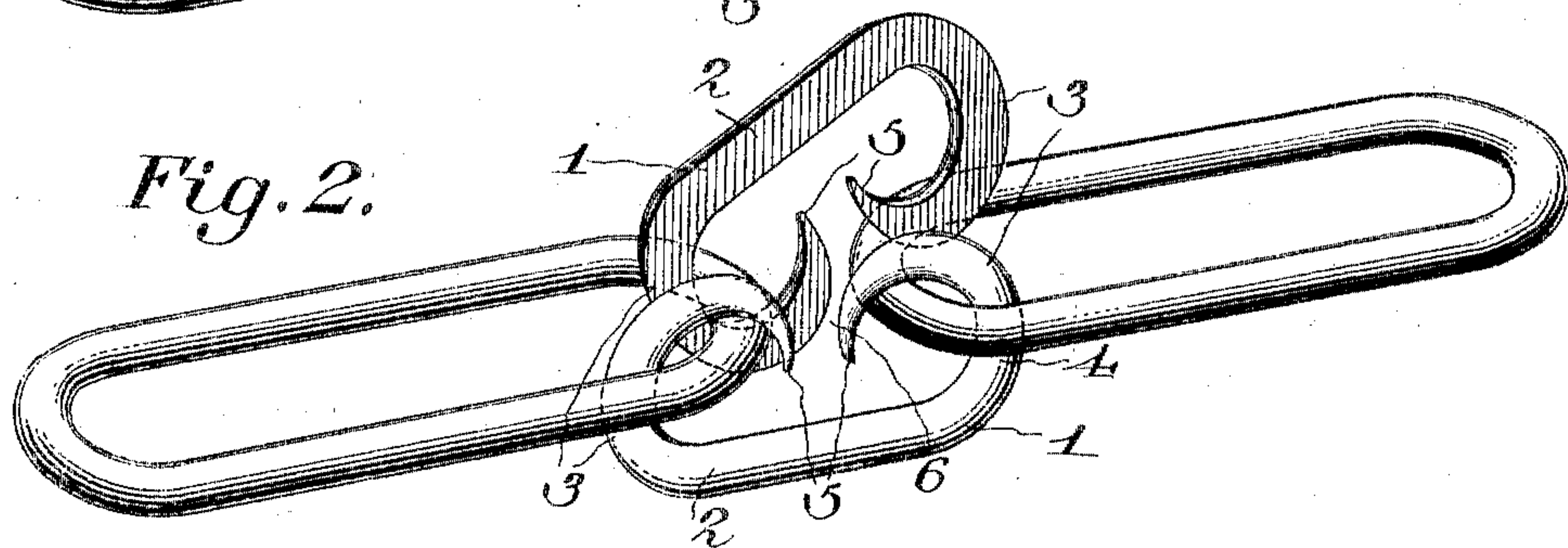
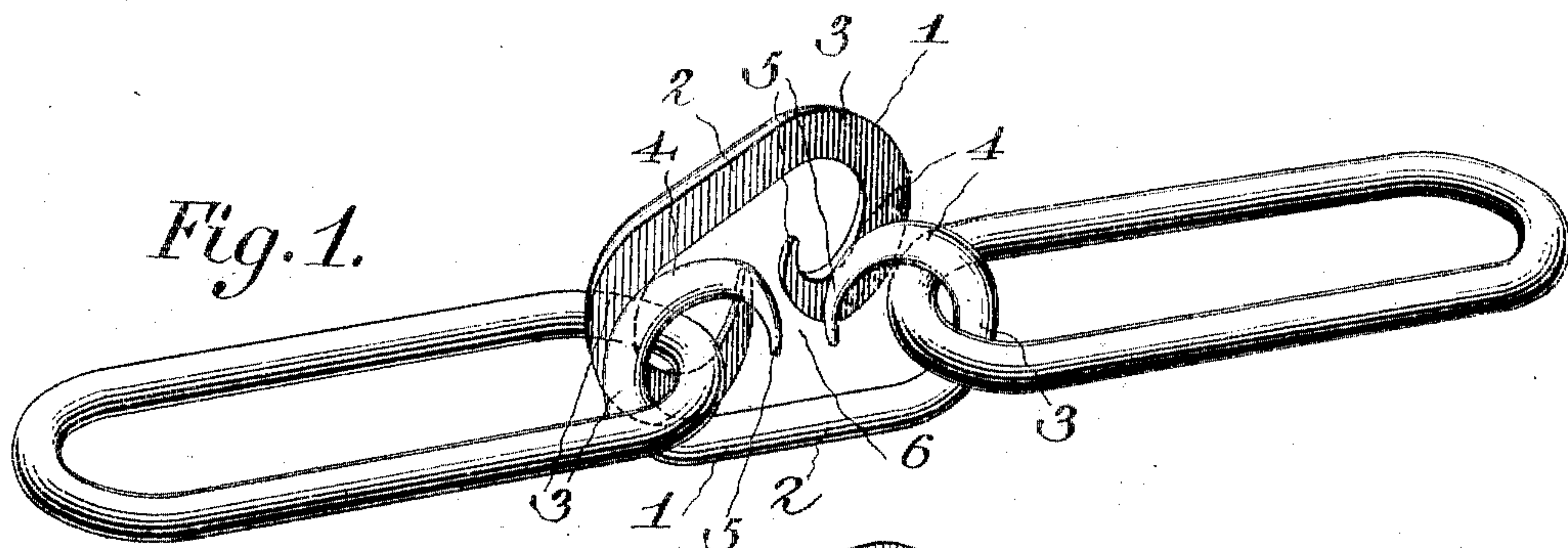
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MENDING LINK.

APPLICATION FILED MAR. 29, 1904.

NO MODEL.



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UNITED STATES PATENT OFFICE.

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MENDING-LINK.

SPECIFICATION forming part of Letters Patent No. 767,073, dated August 9, 1904.

Application filed March 29, 1904. Serial No. 200,570. (No model.)

To all whom it may concern:

Be it known that we, MILTON L. LIVINGSTON and JOHN M. HODGEN, citizens of the United States, residing at Potosi, in the county of Washington and State of Missouri, have invented a new and useful Mending-Link, of which the following is a specification.

This invention relates to mending-links or lap-links such as are used as repair-links for chains for the purpose of replacing broken links in such chains and serving to mend the latter without the use of tools or the employment of skilled labor.

The link of this invention is likewise capable of being used in connection with new chains for the purpose of connecting the ends of the same—for instance, when they are used as sprocket-chains—or for the purpose of detachably connecting sections of chain.

The invention is further applicable to all the uses of a lap-link or lap-ring which is frequently employed in draft attachments for plows and other agricultural implements and for a great variety of other purposes.

The invention has for its object to provide a link of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency; and with these ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being understood, however, that changes may be made, especially with regard to size, proportion, and exact manner of constructing the various parts, when such changes come fairly within the scope of the invention and may be resorted to without departing from the spirit or sacrificing the efficiency of the same.

In said drawings, Figure 1 is a perspective view showing the members of the improved mending-link connected with a chain-link and ready for the insertion of another chain-link. Fig. 2 is a perspective view showing the second chain-link partly inserted. Fig. 3 is a

side elevation showing the two chain-links connected by our improved mending-link. Fig. 4 is an edge view of the same. Fig. 5 is a plan view illustrating a slightly-modified construction of our improved mending-link or lap-link.

Corresponding parts in the several figures are indicated by similar numerals of reference.

The improved mending-link which is the subject of this invention is composed of two separate members or sections, each of which is preferably constructed of half-round iron. These two members, each of which is designated 1, are constructed exactly alike, each comprising what may be termed an "open" link, having the side 2, ends 3 3, and arms 4 4 extending from the ends 3 3 in the direction of each other, each of said arms terminating in an inturned hook 5, which extends in the direction of the side 2, said hook members 5 5 being spaced apart from each other and from the side 2 just sufficient to admit of the insertion between them and the side 2 of a chain-link of the size in connection with which the improved mending-link is intended to be used. The points of the hooks 5 extend in the direction of the ends 3 and extend slightly beyond the longitudinal center of the link-section 1.

It will be observed that when the link-sections 1 1 are placed against each other with their flat sides contacting and with their unbroken sides 2 2 oppositely disposed the hook members 5 will extend in the direction of and slightly overlap each other, the gap or opening 6 between the hook members of each section being obstructed by the unbroken side 2 of the opposite link-section. The two sections together will thus present practically an unbroken link with a pair of cross-bars intermediate the ends thereof, said cross-bars being formed by the overlapping hook members 5 5.

In applying the invention to a broken chain for the purpose of assembling the same the two sections of the mending-link may be held slightly spaced apart, with their flat sides facing each other, as shown in Fig. 1 of the draw-

ings. One of the chain-links to be assembled is now inserted through the gap or opening 6 of one of the link-sections 1, then through the oppositely-disposed gap or opening of the other link-section, as shown in Fig. 1, it being guided into the space between the hook member 5 and the end 3 of each of said link-sections. The opposing link is then similarly guided into the opposite end of the mending-link, thus completing the connection, as shown in Fig. 2.

A pair of links connected by this mending-link will not be liable to come apart under any circumstances until they are separately disengaged from the sections of the mending-link. The hook members 5 5 will coöperate, as hereinbefore stated, to form cross-bars which when the chain is jolted or shaken will cause the links connected by the mending-link to rebound in the direction of the ends of the latter, upon which a longitudinal strain is thus exercised, which is effective in keeping the parts securely connected.

This improved mending-link is, as will be seen, extremely simple in construction, and it may be manufactured at a very moderate expense. The sections or component parts 1 1 of said links being identical in construction, breakage of one of said sections may be easily repaired by replacing it with a new one, which combined with the unbroken section will restore the chain. It will be specially observed that this improved mending-link is free from rivets or other connecting means which are commonly used in devices of this class and by the use of which the individual component parts are greatly weakened.

This device practically possesses the strength of an unbroken link, and a chain mended therewith may be subjected to a heavy strain without danger of injury to the said mending-link.

One of the important advantages of our improved lap-link or mending-link apart from its strength and the facility with which the link members may be connected thereby, whether such link members be parts or sections of chain, clevises, draft attachments, and the like, is the absolute certainty with which such connected members will be held together under any possible conditions of jolting or handling. Even in case of the most excessive jolting when the members of the mending-link are jolted apart from each other the joint tendency of the hook members 5 upon the link members connected by the mending-link will be to throw said link members in the direction of the ends of the mending-link, the members of the latter being thus constantly drawn together and into contact with each other to present an unbroken and constantly active device.

In Fig. 5 of the drawings has been illustrated a slight modification in the construction of our invention. Under this modification the hook members 5 5 instead of form-

ing rounded extensions of the arms 4 4 of each member of the link are formed with straight inner edges 7, which form acute angles 8 with the inner sides of the arms 4. Thus when the two members of the link are placed in operative relation to each other the points of the hook members will overlap each other, as clearly seen in said Fig. 5. The distance between the points 9 of the hook members and the adjacent edges of the sides 2 will be exactly equal to the distance between the extremities of the arms 4 4 where the latter merge with the outer edges 7^a of the hook members 5, and this distance is to be exactly equal to the diameter of the links or members that are to be connected by means of our improved mending-link or lap-link, a portion of one of said members being shown in dotted lines in said figure, where it is indicated by the numeral 10. It is obvious that by this construction, as by the construction hereinbefore described, whenever the adjacent chain-link is shaken against the member 5 or either of said links the tendency will be to throw such offending chain-link and the side 4 of the mending-link toward each other, thus preventing accidental detachment or displacement of the parts.

Having thus described our invention, we claim—

1. A mending-link composed of two link-shaped members, each provided in one side thereof with a gap or opening and with intumed guides adjacent to said gap.

2. A mending-link composed of two link-shaped members each provided with a gap or opening in one side thereof and with intumed hook-shaped guides adjacent to said gap.

3. A mending-link composed of two link-shaped members, each provided in one side thereof, with a gap or opening and with hook-shaped guides adjacent to said gap, the points of said guides being extended beyond the longitudinal center of the link.

4. A mending-link composed of two link-shaped parts, each provided with a gap or opening in one side thereof and with inwardly-extending guides adjacent to said gap, the inner sides of said guides being at acute angles with relation to the adjacent sides of the link members.

5. A mending-link or lap-link consisting of a link having a gap in one side thereof, and inwardly-extending guides adjacent to said gap, the width of said gap being precisely equal to the distance between the inner ends of the guide members and the proximate side of the link member.

6. A mending-link or lap-link consisting of two link-shaped members, each having a gap or opening in one side thereof, and inwardly-extending guides adjacent to said gap, the inner sides of said guides being at acute angles to the adjacent arms or sides of the link members and the width of the gap being equal to

the distance between the points of the guide members and the proximate sides of the link members.

7. A mending-link or lap-link consisting of
5 two link-shaped members of half-round iron adapted to be placed with their flat sides operatively in contact with each other, said link members being provided in opposite sides thereof with gaps and with inwardly-extending
10 hook-shaped guide members adjacent to said gaps, the width of said gaps being equal

to the distance between the inner ends of the hook members and the proximate sides of the link members.

In testimony that we claim the foregoing as
our own we have hereto affixed our signatures
in the presence of two witnesses.

MILTON L. LIVINGSTON.

JOHN M. HODGEN.

Witnesses:

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