

(Model.)

D. F. SPANGLER.
SWIVEL LINK.

No. 256,755.

Patented Apr. 18, 1882.

Fig. 1.

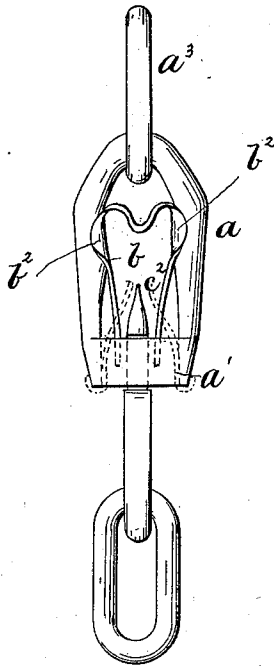


Fig. 2.

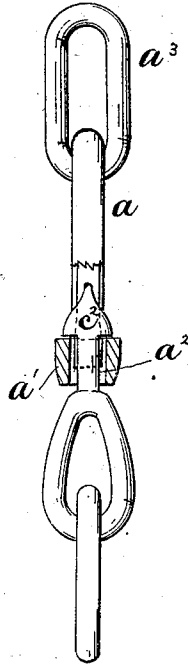


Fig. 3.

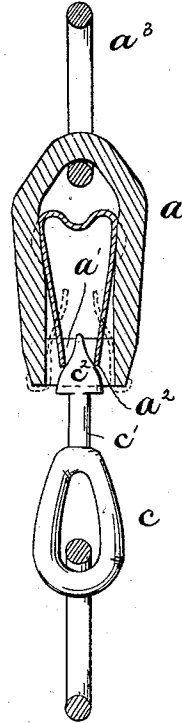


Fig. 4.

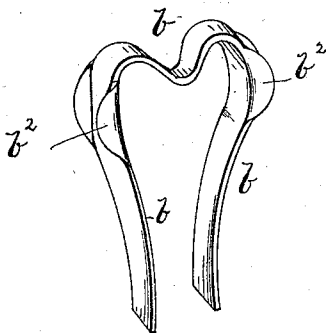
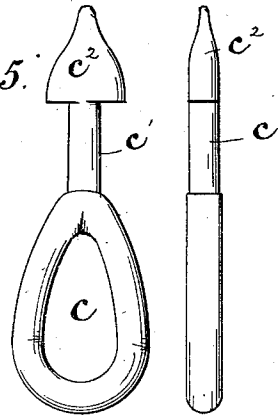


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

DAVID F. SPANGLER, OF DAYTON, WASHINGTON TERRITORY.

SWIVEL-LINK.

SPECIFICATION forming part of Letters Patent No. 256,755, dated April 18, 1882.

Application filed December 21, 1881. (Model.)

To all whom it may concern:

Be it known that I, DAVID F. SPANGLER, a citizen of the United States, residing at Dayton, in the county of Columbia and Washington Territory, have invented certain new and useful Improvements in Swiveled Links for 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in swivel-links generally, and is particularly applicable to those chains employed in logging.

It is desirable in logging to have a swiveled link that will securely connect the sections when hauling and at the same time will readily uncouple in emergencies, such as when the log starts to roll down a hill, as will be hereinafter described.

My invention consists in a link composed of a yoke provided with a cross-bar, through which is formed an elongated opening or slot, and a detachable eye having a suitably-formed arrow-head, which is thrust through the elongated slot and then turned so as to lock it in the yoke, and a spring placed within and held by the yoke and arranged to close against or near to the head of the detachable eye and prevent the removal of the latter, except under severe strain, as will be hereinafter fully set forth.

In the accompanying drawings, Figures 1 and 2 show side and edge views of the yoke with the detachable eye attached thereto, Fig. 2 being slightly broken to show the arrow-head. Fig. 3 is a vertical section. Fig. 4 is a view of the spring. Fig. 5 shows a side and edge view of the detachable eye with its shank and arrow-head. In Figs. 1 and 3 I show in dotted lines a modification whereby I employ two springs.

a is the link, having a head-piece, a' , through which is formed an elongated opening, a^2 . This opening leads from the end of link through the head-piece into the hollow of the link, as shown.

b is a U-shaped spring, placed within the link a with sufficient space between its upper end and the lower side of the top of the said

link to permit the adjoining link, a^3 , to be inserted. This spring-bar has its side arms, $b'b'$, projected downward and terminated within the opening a^2 through the head-piece a' of link a .

b^2 are ears formed on the side arms, b' , near their upper ends, and arranged in position to embrace the sides of the link and secure the spring in position.

c is the detachable eye, constructed with a shank, c' , and an arrow-head, c^2 . The arrow-head is thrust through the slot in the cross-bar a' , and is then turned so as to bring its wings at a right angle to the said slot and across the inner edges of said cross-bar, as shown in Fig. 2, thus locking the yoke and eye together.

c' is a shank projected from one end of link c , and it is of same length as or slightly longer than the head-piece a' of link a . On the end of this shank c' is formed a fluke or arrow-head, c^2 , which is made nearly as wide as the length of the elongated opening a^2 of link a . The edges of this arrow-head or fluke are rounded, so that it will force the arms of spring b back when the link c is turned, as will be hereinafter described.

In dotted lines, Figs. 1 and 3, I show a modification in the manner of arranging the spring. Instead of having the spring formed U-shaped and extended from above downward, with one of its side arms on each side of the arrow-head, there may be provided two spring-bars with their lower ends fixed to lower side of head-piece a' and extended up in each end of the opening, with their tops inclined toward each other, as shown. I prefer, however, the construction shown in full lines.

In the operation of my invention the fluke is placed in the opening through the head a' and pushed up between the arms of spring till it passes the top of head-piece and turned, and the fluke will rest on the side of top of the head-piece a' , as shown in Figs. 1 and 2. In this position it is ready to stand any heavy steady pulling, and no slight jar would throw it out of place, as the springs on either side of the arrow-head prevent its turning far enough to bring the flukes in line with the elongated opening through the head-piece, except under extraordinary twisting strain, as will be described. In starting or hauling a log on a hillside the log will often roll, and when the team is hitched

thereto in the ordinary manner will drag the team downhill, killing or maiming the animals, and oftentimes the chain is badly broken, causing serious inconvenience and expense of repairing the same; but in my device, if the log rolls one way or another, the link *c* will be turned and the flukes will force the arms of spring, and the arrow-head will come in line with and escape through the opening in the head-piece, and the log will be separated from the team, and when the log stops rolling the teamster can hitch to the log and continue as before.

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

1. A swivel-link composed of a yoke provided with a head-piece through which is formed an elongated opening, a detachable eye having an arrow-head or like construction

adapted to be passed up through the elongated opening in the head-piece of yoke, and an independent spring arranged within the yoke and adapted to close against or near to the arrow-head of the detachable eye and prevent the same from turning, substantially as set forth.

2. The combination, with the yoke of a swivel-link, of the U-spring *b*, provided with lips or jaws on its opposite arms, adapted to grasp the sides of the yoke, and having its ends extended to and arranged to close against or near to the arrow-head of the detachable eye, substantially as set forth.

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

DAVID F. SPANGLER.

Witnesses:

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