

J. D. LUALLEN & T. PAIRAN.
Elastic Link for Chains, &c.

No. 220,926.

Patented Oct. 28, 1879.

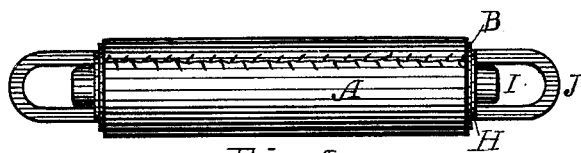


Fig. 1.

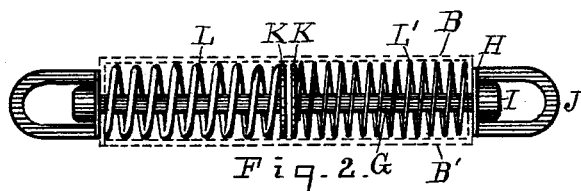


Fig. 2.

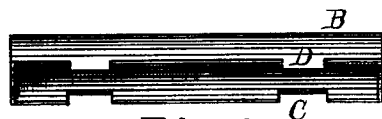


Fig. 3.

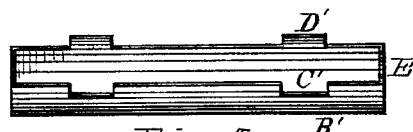


Fig. 4.

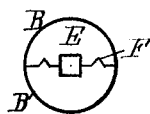


Fig. 5.

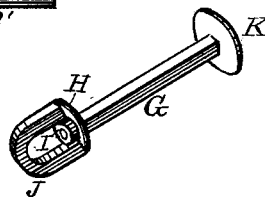


Fig. 6.

Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES D. LUALLEN AND THEODORE PAIRAN, OF CARROLL, OHIO.

IMPROVEMENT IN ELASTIC LINKS FOR CHAINS, &c.

Specification forming part of Letters Patent No. **220,926**, dated October 28, 1879; application filed August 4, 1879.

To all whom it may concern:

Be it known that we, JAMES D. LUALLEN and THEODORE PAIRAN, of Carroll, in the county of Fairfield and State of Ohio, have invented a new and useful Improvement in Elastic Trace and Tongue Chain Links, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a view of the link complete. Fig. 2 is a side elevation with the shell removed. Figs. 3 and 4 are perspective views of the portions forming the shell. Fig. 5 is an end view of the shell, and Fig. 6 is a detail perspective view of a portion of the link.

The object of our invention is to provide a simple elastic link for use in traces or tongue-chains, by means of which the draft of the team may be relieved of sudden concussions; and it consists in a couple of semi-cylindrical shells, which fit together neatly and are covered by having rubber or leather tubing slipped over them. Within this case are two bars, having springs of different elasticity, which bars work in opposite directions, as will hereinafter be more fully set forth:

In the drawings, Fig. 1, A represents a rubber or leather tubing, which fits closely over a case composed of the semi-cylindrical shells B B', an end view of which is given in Fig. 5. These shells have cut-away portions C C' on opposite sides, and corresponding therewith, in the opposite edges, are tongues D D', which fit into said cut-away portions when the shells are put together. In the end parts E of these shells are also tongues and cut-away portions F, as shown in Fig. 5, which serve to hold together the shells more firmly when adjusted.

G represents a bar, having at one end a swivel, H, and link J, which is attached to the bar by means of the nut I. The opposite end of the bar G has a permanent head, K. A coiled spring of proper elasticity is placed on

this bar, one end of said spring operating against the head K, and the opposite end against the end E of the shell. A similar bar, provided with a spring, is placed in the opposite end of the shell, and the link, so constructed, enables the user to adjust it in any part of the trace or tongue chain.

We design using two coiled springs of different tension in each shell, as represented in Fig. 2 by L L', the object of which is to make a universal adjustment for the weight of the load. Thus, if a light load is being drawn, only the lighter spring L' will be actuated, and for heavier loads the large spring L.

The advantages in the use of this link are obvious, from the fact that it is no larger than the trace or tug, and is readily adjusted when desired. The horse can draw the load with more ease, as it will not be a dead weight, and it would be difficult for the animal hitched to one of these links to break away except by a steady pull.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The semi-cylindrical shells B B', having cut-away portions C C' and corresponding tongues D, D', and F, adapted to fit each other, the whole being kept in a cylindrical form by means of a rubber or leather tubing, A, drawn over said shells, substantially as and for the purpose specified.

2. The shells B B', provided at each end with a bar, G, having a head, K, spring L, and swivel H, substantially as and for the purpose herein described.

In testimony that we claim the foregoing we have hereunto set our hands this 29th day of July, 1879, in the presence of witnesses.

JAMES D. LUALLEN.
THEODORE PAIRAN.

Witnesses:

SAML. COFMAN,
REZIN F. BAKER.