H. J. MORELAND.

Tug-Link.

No. 221,181. Patented Nov. 4, 1879.

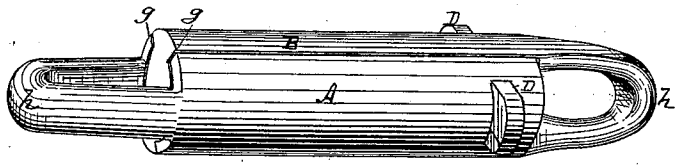



Fig. 1.

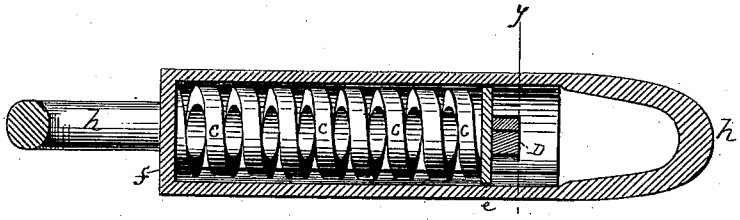



Fig. 2.

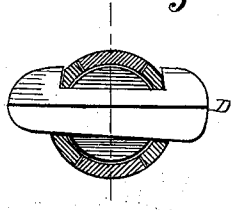



Fig. 3.

Witnesses

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# UNITED STATES PATENT OFFICE.

HENRY J. MORELAND, OF PITTSBURG, PENNSYLVANIA.

## IMPROVEMENT IN TUG-LINKS.

Specification forming part of Letters Patent No. **221,181**, dated November 4, 1879; application filed September 5, 1879.

*To all whom it may concern:*

Be it known that I, HENRY J. MORELAND, of Pittsburg, in the county of Allegheny, State of Pennsylvania, have invented a certain new and useful Improvement in Tug-Links; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to certain new and useful improvements in the class of tug-links, and more especially to improvements upon my former patent dated July 1, 1879, and numbered 217,020; and the invention consists, essentially, in the general construction and combination of parts, whereby the spring is inclosed in a cylinder made in two detachable parts, in contradistinction to encircling a tug-link composed of two detachable parts with a spring, as in my former patent above referred to, the whole being so arranged that when the draft is brought to bear upon the tug the two sections draw in opposite directions in proportion to the force brought to bear upon the spiral spring.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings, which form part of my specification, Figure 1 is a side elevation of my improvement. Fig. 2 is a longitudinal section of the same. Fig. 3 is a transverse section at line *y* of Fig. 2.

In the drawings, A represents the female portion of the cylinder; B, the male portion, in which is placed the spiral spring C.

D represents the gib and key for holding the spring in place. *e* is a washer placed within the cylinder at one end of the spiral spring, and is used for the purpose of keeping out mud or slush, and forming a bearing for the inclosed spring.

The inner end of the section B is united by a transverse piece, *f*, and the part A, at the point of union, is held in position with relation to the part B by the beveled edges indicated at *g*. The openings or loops *h* are for attaching the tug-link to the vehicle and traces.

I am aware that a cylindrical shell inclosing two flat draft-links, which in turn inclose a spring, is old, and such I do not wish to be understood as claiming, broadly, as my invention; nor do I wish to be understood as claiming, broadly, anything shown and described in my former patent, before referred to.

By my present construction of tug-link, while the spring is inclosed in a cylinder, it can be readily removed and replaced, or a new one substituted therefor, in consequence of the cylinder being made in two detachable parts.

Having thus described my improvement, what I claim is—

1. A tug-link consisting of a cylinder constructed in two detachable parts, A and B, inclosing a spiral spring, C, held in place through the medium of a gib and key, said parts operating substantially as herein described, and for the purpose set forth.

2. A tug-link consisting of a cylinder constructed in two detachable parts, A and B, inclosing a spiral spring held in position through the medium of a gib and key combined with a washer, *e*, substantially as herein described, and for the purpose set forth.

H. J. MORELAND.

Witnesses:
A. C. JOHNSTON,
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