(No Model.)

S. A. RICHARDS & G. J. FREY.

THILL COUPLING.

No. 265,437. Patented Oct. 3, 1882.

Fig. 1.

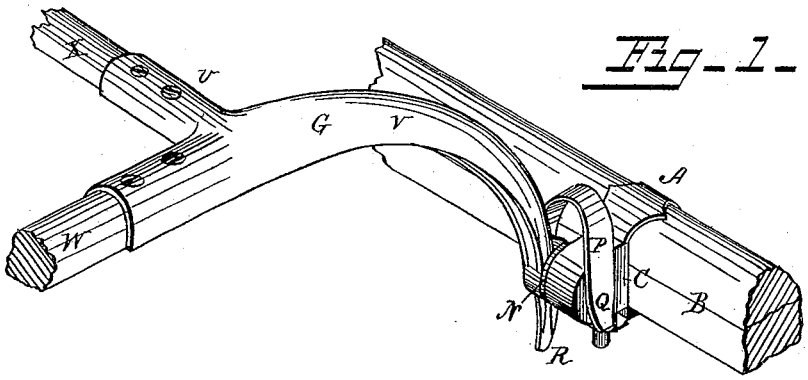


Fig. 2.

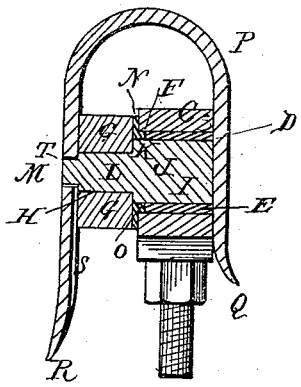


Fig. 3.

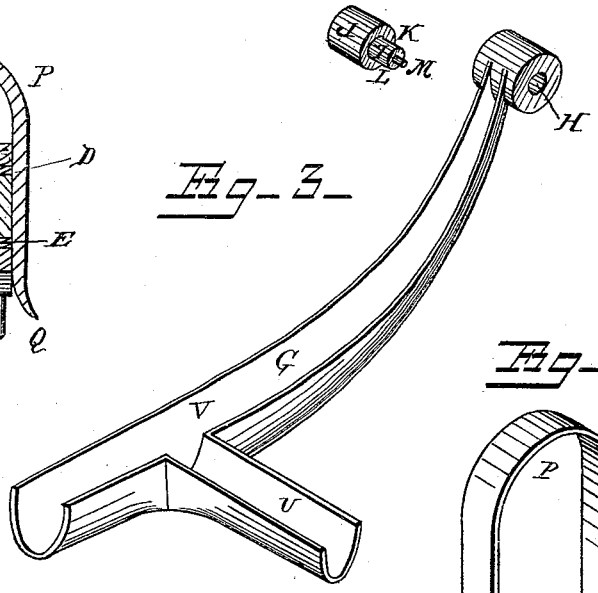
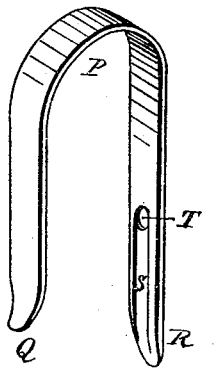


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

SAMUEL A. RICHARDS AND GEORGE J. FREY, OF NOVA, OHIO, ASSIGNORS TO SAID GEORGE J. FREY.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 265,437, dated October 3, 1882.

Application filed August 1, 1882. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL A. RICHARDS and GEORGE J. FREY, of Nova, in the county of Ashland and State of Ohio, have invented certain new and useful Improvements in Thill-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to thill-couplings; and it consists in certain improvements in the construction and operation of the same.

In the drawings, Figure 1 is a perspective view of our improved thill-coupling; Fig. 2, a vertical sectional view thereof; Fig. 3, a detail perspective view of the holding-bolt and under side of the thill-iron, and Fig. 4 a like view of the holding-spring.

Referring to the drawings, A designates the clip, which is secured on the axle or cross-bar B in the usual manner, and is provided on its front side with a lug, C, having a transverse eye or perforation, D, in which is arranged a cylindrical washer, E, a shoulder, F, being preferably formed by washer E at one side.

G is the thill-iron, which is formed with an eye or perforation, H, at its rear end, in which is adjusted the cross-bolt I, comprising a larger cylindrical portion, J, forming a shoulder, K, and smaller cylindrical portion, L, which fits in eye H, and is provided on its end with a pin or stud, M, as shown. If desired, the transverse bolt I may be cast or otherwise formed integral with the end of the thill-iron. The large cylindrical portion J is adjusted in the eye D of lug C, a washer, N, being interposed between the side of the lug and side of the end of the thill-iron. Washer N is preferably formed or provided with an annular lateral flange or shoulder, O, which enters or abuts against shoulder F to form an effective sand-guard for the working parts of the device.

P is the ∩-shaped holding-spring, having outturned lower ends, Q and R, the latter being preferably longer than the former, and is provided on its inner side with an upright guide-groove, S, terminating in an opening or perforation, T. In practice spring P is adjusted over so that its ends will clamp or bind on the sides of lug C and the end of the thill-iron. Thus the end Q covers the end of bolt I, while the pin M is received into perforation T. Pin M is guided into perforation T by groove S, and the outturned ends of spring P facilitate the adjustment of the latter in position. By simply extending the end R of spring P until the stud M is released from perforation T the spring may be elevated and removed, and the disengagement of the thills with the clip accomplished. The thill-iron G is provided with an integral lateral extension, U, which, with the main portion V, is grooved on its under side, the latter to form a socket for the thill W and the former for the cross-piece X.

The operation and advantages of our invention will be readily understood.

The device is very simple, convenient in adjustment, inexpensive, durable, and efficient.

We claim as new—

1. The combination of the clip having the single lug C with perforation D, thill-iron G, having eye H, cross-bolt I, having large cylindrical portion J, shoulder K, small cylindrical portion L, and projecting pin M, and the spring P, having imperforate outturned end Q, and longer end, R, outturned and grooved longitudinally, said groove terminating in a perforation, T, as set forth.

2. The combination, with the clip A, thill-iron G, and cross-bolt I, one end being smooth and the other having a projecting pin, M, of the holding-spring P, having a straight imperforate portion terminating in an outturned end, Q, and a longer opposite end, R, having an outturned point and longitudinal inner groove, S, terminating in a perforation, T, whereby the spring is secured at only one side, as set forth.

3. In a thill-coupling, the combination, with clip A, having perforation D, in which is placed cylindrical washer E, arranged to form an annular shoulder, F, in said perforation, of the thill-iron G and intermediate washer, N, provided with an annular lateral flange, O, around its central perforation, said flange O entering opening D and abutting against shoulder F, as set forth.

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

SAMUEL A. RICHARDS.
GEORGE J. FREY.

Witnesses:
J. S. MILLER,
ELZIE OGDEN.