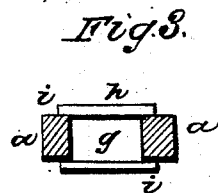
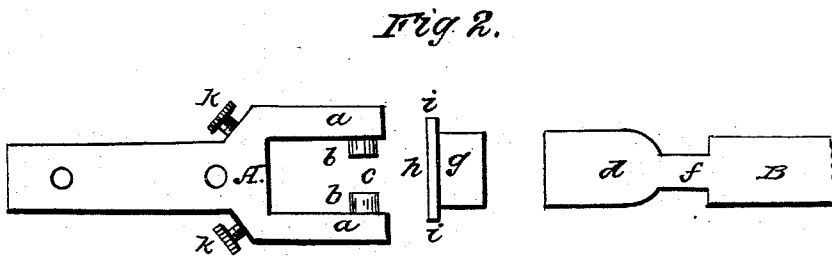
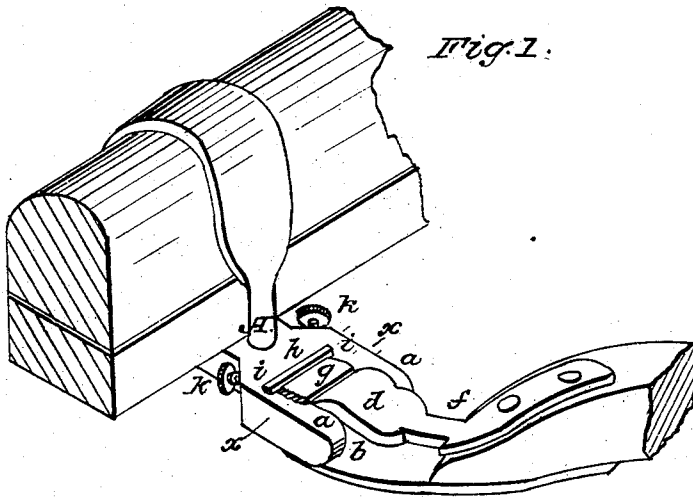


N. N. GORDON.

Thill Coupling.

No. 83,843.

Patented Nov. 10, 1868.



Witnesses
W. J. Chamberlain
J. P. Stalke

Inventor.
Norman S. Gordon
By J. Frazer & Co
Attys

United States Patent Office.

NORMAN N. GORDON, OF ROCHESTER, NEW YORK, ASSIGNOR TO
HIMSELF AND ROBERT BOYD, OF SAME PLACE.

Letters Patent No. 83,843, dated November 10, 1868.

IMPROVEMENT IN THILL-COUPINGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, NORMAN N. GORDON, assignor to myself and ROBERT BOYD, both of Rochester, in the county of Monroe, and State of New York, have invented a certain new and useful Improvement in Thill and other Couplings; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improvement.

Figure 2, a detailed view of the parts separated.

Figure 3, a section in line *x x*, fig. 1.

Like letters of reference indicate corresponding parts in all the figures.

My invention consists in the construction of the jack with two inwardly-projecting journals, with a space between, and the combination therewith of a thill-iron, having an entire eye, with a narrow neck, which enters the space between the journals, to couple the parts, the eye being held forward by a suitable packing, adjusted by screws in the rear, the whole as hereinafter set forth.

In the drawings, A indicates the jack applied to the axle, and B indicates the thill-iron.

The jack is provided with two jaws, *a a*, as usual, and these jaws have inwardly-projecting journals or bearings, *b b*, opposite each other, as shown, and leaving a space, *c*, between.

The thill-iron is made from a strip of sheet-metal, or wrought-iron, wrapped around the end of the thill, and bolted thereto, and formed with an entire or unbroken eye or loop, *d*. On the upper side, and at some distance forward of the bearing-portion of the eye, is made a narrow neck, *f*, of such a width as to just enter space *c*, between journals *b b*, when the thill is held in an upright position.

When the eye *d* is thus inserted between the jaws of the jack, it just fills the transverse space, and, being held forward in a suitable manner, bears upon the journals *b b*, and cannot become detached by accident. In order to retain the parts in this position, I insert, back of this eye, the usual block *g*, of India rubber, or equivalent, combined with a novel pressure-plate, *h*, of metal, which, having over-projecting lugs, *i i*, slides securely within the jaws, and sets the rubber block up

against the eye, through media of set-screws *k k*. The bearing can thus always be kept tight.

The great novelty in this arrangement consists in the combination of the closed loop *d* with the short journals or bearings *b b*, whereby great security is obtained, and a long bolt, or extended bearing across from jaw to jaw, is avoided. The object of this is to allow the sand that is thrown up by the horse's feet from collecting in the bearing, as it does where the bolt extends clear across, as in other devices. In this joint the sand will fall from the centre opening *c*, and prevent wear.

I am aware that an open hook has been formed on the end of the thill-iron, engaging with a bolt, *b*, extending across from jaw to jaw. Such is not the equivalent of my invention, not only for the reason above named, but also for the reason that the eye in my case is entirely closed, thereby insuring more strength, and much greater security against accidental detachment of the bearing.

I am enabled to secure the advantages above described by the employment of the narrow neck *f*, in connection with the open journals *b b*, which I claim specially as new.

This same principle can be applied in connection with other couplings, for instance, in connecting traces with whiffle-trees, connecting harness with neck-yokes, connecting draught-ropes with canal-boats, &c.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the closed eye *d*, provided with narrow neck *f*, with the jaws *a a*, provided with the separated bearings or journals *b b*, the whole arranged as described, and operating in the manner and for the purpose specified.

Also, in combination with the above, the sliding pressure-plate *h*, provided with lugs, *i i*, which rest upon the jaws, the said plate serving to apply the rubber block to the bearing, through media of screws *k k*, as herein described.

In witness whereof, I have hereunto signed my name, in the presence of two subscribing witnesses.

N. N. GORDON.

Witnesses:

FRED. A. HATCH,
J. R. DRAKE.