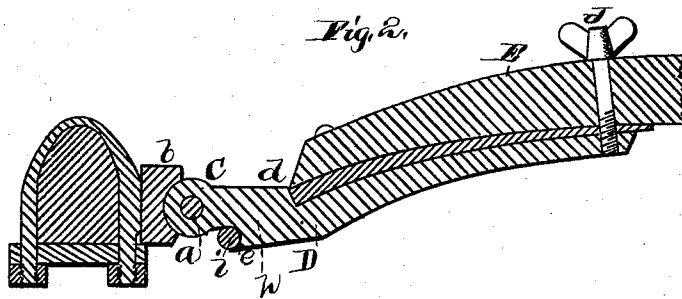
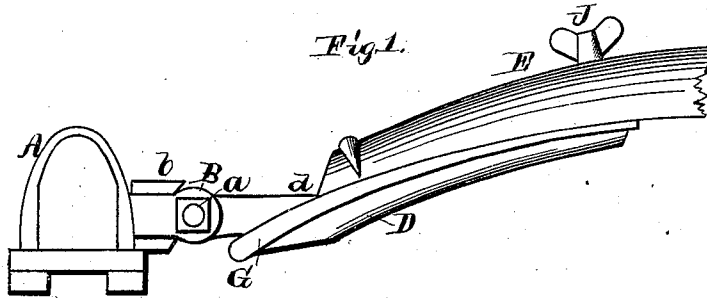


B. S. PORTER.  
THILL-COUPLING.

No. 170,491.

Patented Nov. 30, 1875.



WITNESSES:

*Jas. J. Duhamel,*  
*Thomas. Byrne,*

INVENTOR:

*Benjamin S. Porter,*

PER

*H. J. Abbot,*

ATTORNEY

# UNITED STATES PATENT OFFICE.

BENJAMIN S. PORTER, OF OTTAWA, ILLINOIS, ASSIGNOR OF ONE-HALF  
HIS RIGHT TO JOSHUA G. GAY, OF SAME PLACE.

## IMPROVEMENT IN THILL-COUPINGS.

Specification forming part of Letters Patent No. **170,491**, dated November 30, 1875; application filed  
September 29, 1875.

*To all whom it may concern:*

Be it known that I, BENJAMIN S. PORTER, of Ottawa, county of La Salle and State of Illinois, have invented certain new and useful Improvements in Thill or Shaft Coupling, of which the following is a specification:

My invention relates to thill or shaft couplings; and it consists in so constructing the coupling that the shafts or tongue may be attached and detached at will without disturbing the thill-iron or eye of the coupling, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a side view of my invention, and Fig. 2 is a longitudinal section of the same.

A represents the ordinary axle-clip, with projecting ears B B, between which the eye C of the thill-iron D is held by means of a bolt, *a*. *b* is the usual rubber block between the eye C and front of the clip A.

To this coupling I lay no claim, as that is well known and in common use.

The thill-iron D, in front of the eye C, is constructed as shown, to form a shoulder, *d*, on top, and at the rear on the under side it forms a curved or semicircular notch, *e*. E is the tongue or shaft, provided on its under side with an iron bar or strap, G, which extends a short distance beyond the rear end thereof. This projecting end of the iron G has a slot,

*h*, leaving simply a cross-bar, *i*, at the end, which is rounded on its inner side, as shown. The iron G is passed, with its slot *h*, over the thill-iron D, until the cross-bar *i* can be placed in the notch *e*, when the shaft or tongue is let down, or thill-iron D raised, until the shoulder *d* fits into said slot, and then a thumb-screw, J, passed through the shaft, is screwed into the front end of the thill-iron, thereby securing said iron firmly to the shaft.

By this invention the shaft or tongue can be easily removed and exchanged without taking the eye out of the thill-coupling.

This invention may be applied to any thill-coupling of whatever construction, and the specific means for detachably connecting the thill-iron or eye to the shaft or tongue may be changed in many ways without departing from the spirit of my invention.

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

1. The combination of the axle-clip A, thill-iron D, strap G, and shaft or tongue, substantially as shown and described.

2. The combination of the thill-iron D, having shoulder *d* and notch *e*, with slotted strap G, substantially as shown and described.

In testimony that I claim the foregoing as my invention I hereunto affix my signature.

BENJAMIN S. PORTER.

Witnesses:

JAMES McMANUS,  
P. W. STOCKSLEGER.