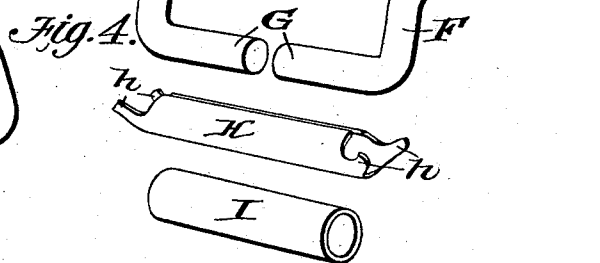
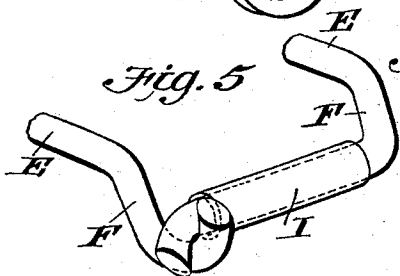
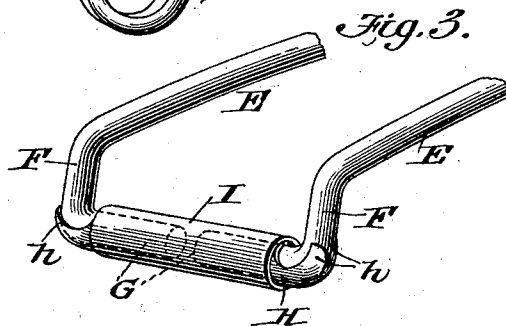
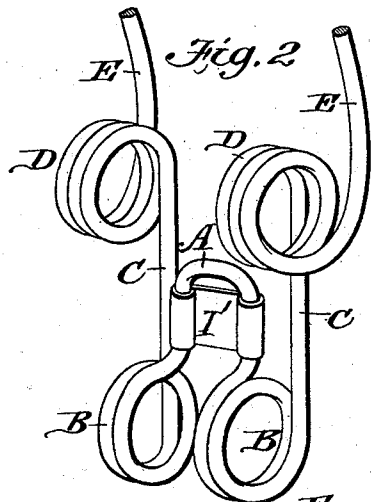
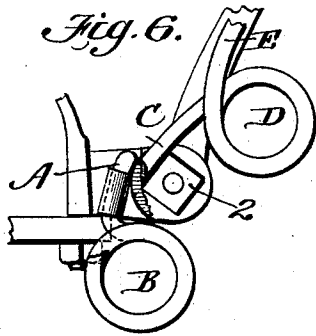
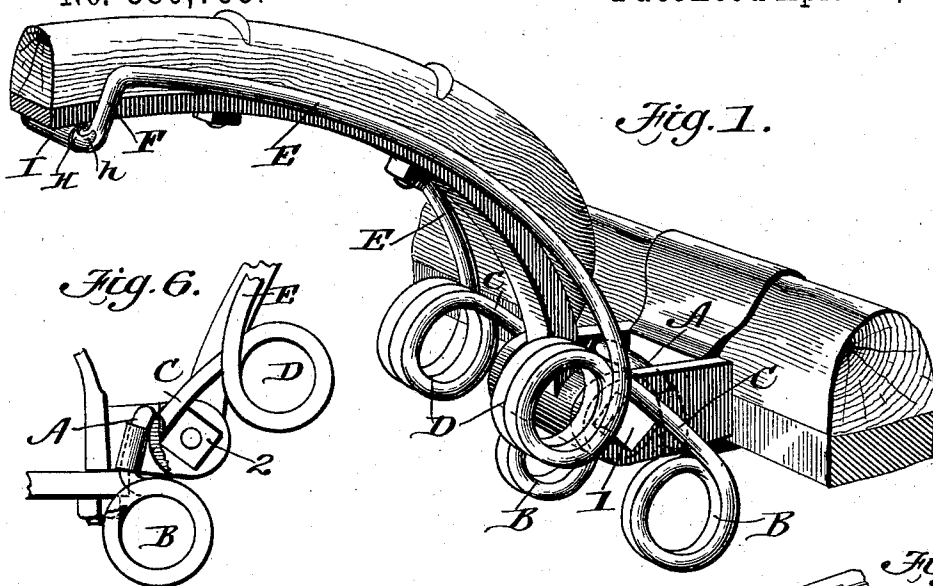


(No Model.)

G. BARTLETT.  
THILL SUPPORT.

No. 580,755.

Patented Apr. 13, 1897.



WITNESSES:  
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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

GRANVILLE BARTLETT, OF WINCHESTER, KENTUCKY.

## THILL-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 580,755, dated April 13, 1897.

Application filed January 9, 1897. Serial No. 618,510. (No model.)

*To all whom it may concern:*

Be it known that I, GRANVILLE BARTLETT, of Winchester, in the county of Clark and State of Kentucky, have invented a new and useful Improvement in Thill-Supports, of which the following is a specification.

My invention is an improved thill-support for vehicles, and has for an object, among others, to provide a device which will operate to support the thill, prevent the coupling from rattling, and lock the bolt and nut from turning; and the invention consists in certain novel constructions, combinations, and arrangements of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the invention as in use. Fig. 2 is a detail perspective view of the lower part of the support detached. Fig. 3 is a perspective view of the upper part of the support. Fig. 4 illustrates the thill-seat in detail. Fig. 5 illustrates a somewhat different form of thill-seat, and Fig. 6 is a detail sectional side view.

The support is preferably made of heavy wire or rod bent upon itself at its middle portion to form the curved hook or tongue-like portion A, which engages the thill-eye, having coils B at the ends of the hook A, having wings C extended thence upward and forward and adapted to bear against and lock the bolt-head 1 and nut 2 from turning, having upper coils D above said nut and bolt-head, and having the arms E extended forward and upward alongside the thill and provided near their forward ends with depressed portions F, between which is arranged the seat for the thill, such seat being shown in Fig. 4 as composed of studs G, projecting inwardly from the depressed portion F, a tube H receiving said studs and having at its ends portions h engaging the side arms and so serving to hold the opposite studs and side arms together. Over this tube I fit a sleeve I, forming an anti-friction-roller to bear beneath the thill.

Instead of the special construction of seat shown in Fig. 4 I may employ that shown in Fig. 5, in which the shaft or stud is formed on only one side arm and projects to and is made fast to the other, a sleeve being supplied thereon.

The construction of the support with upper

and lower coils is important in several respects, inasmuch as by it only a small portion of the weight of the thill is carried by the lower coils, the balance being carried by the upper set. Furthermore, by arranging the coils in upper and lower sets I furnish enough coils to give the necessary tension to hold the thills in position without extending the coils laterally near enough to the hub to accumulate mud and grease. The long or main portion of the side arms correspond in shape to the portion of the thill along which they extend, avoiding any bad appearance, and the depressed or downward bends form a recess for the thill-iron to rest in and prevent any sidewise shifting of the support out of position.

By the arrangement of the intermediate portions or wings C to lock both the bolt and the nut I avoid those distressing accidents resulting from a working loose of the bolt or nut, and do so without any complicated or expensive devices.

A band or plate I' is placed around the curved hook and is arranged to bear against the end of the axle-clip plate and nut. By arranging the lower coils to carry only a small portion of the weight of the thills the wear on the hook, thill-eye, and bolt is much less than if the entire weight of the thills was borne by the said lower coils.

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

1. A thill-support having a hook-like tongue to engage the thill-eye and side arms provided with upper and lower coils, and an intermediate portion arranged to bear upon the nut and bolt-head, and portions extended from the upper coils and adapted to support the thill all substantially as shown and described.

2. A thill-support composed of a length of wire bent upon itself to form at its middle the curved hook arranged to bear against the thill-eye, having at the end of said hook the lower coils extended thence forming the nut and bolt locking wings coiled at the ends of said wings and having extended portions forming side arms, the depressed portions at the ends of said arms having the inwardly-projected studs, the tube receiving said studs

and having portions engaging the depressed portions of the side arms and the sleeve on said tube all substantially as shown and described.

- 5 3. A thill-support having side arms provided at their ends with inwardly-projecting studs the tube on said studs and having at

its ends portions engaging the side arms and the sleeve on said tube substantially as shown and described.

GRANVILLE BARTLETT.

Witnesses:

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