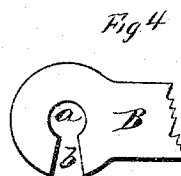
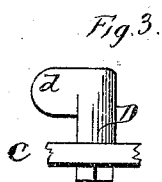
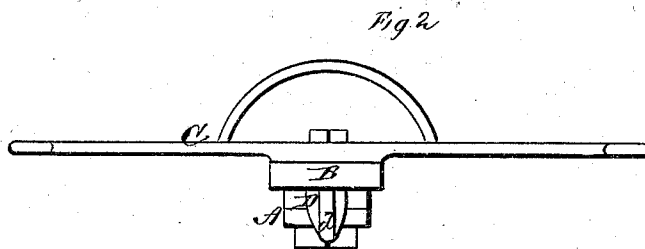
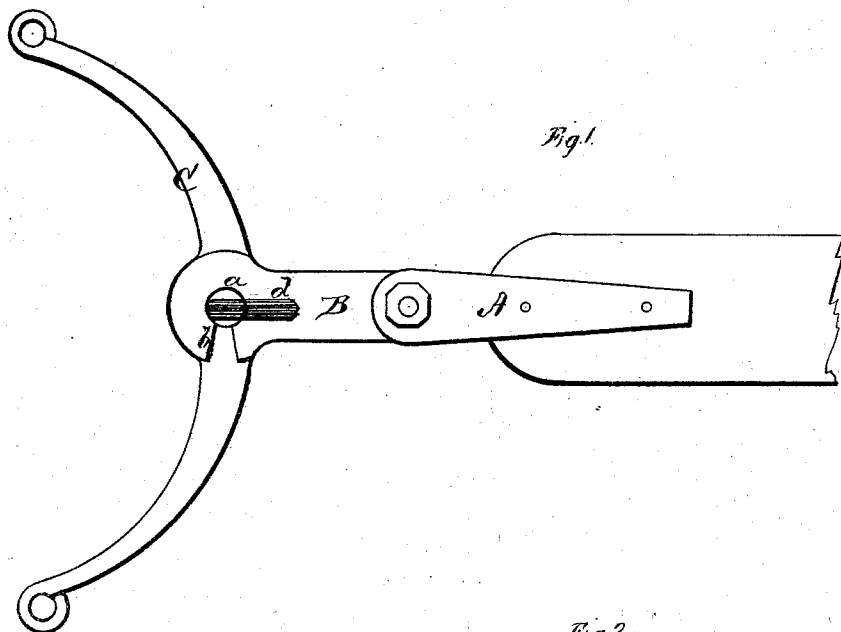


J. WILLS.
Singletrees for Horse-Cars.

No. 137,990.

Patented April 15, 1873.



Witnesses:
 *Jas. O. Hutchinson
 C. L. Everett.*

Inventor.
 John Wills.
 per
 Alexander Mason
 Attorneys.

UNITED STATES PATENT OFFICE.

JOHN WILLS, OF ROCK ISLAND, ILLINOIS.

IMPROVEMENT IN SINGLE-TREES FOR HORSE-CARS.

Specification forming part of Letters Patent No. **137,990**, dated April 15, 1873; application filed March 25, 1873.

To all whom it may concern:

Be it known that I, JOHN WILLS, of Rock Island, in the county of Rock Island and in the State of Illinois, have invented certain new and useful Improvements in Single-Tree for Horse-Cars; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction of certain devices for attaching and detaching single-trees to horse-cars, 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, in which—

Figure 1 is a bottom view, and Fig. 2 a front view, of my invention; Figs. 3 and 4 are views of detached parts thereof.

A represents a bar of any suitable dimensions to be firmly secured to the car or the frame supporting the car. On the front end of this bar A is pivoted another bar, B, and in the front end of this second bar is made a round hole, *a*, with a slot, *b*, extending from

said hole to one side through the edge of the bar. C represents the single-tree, which is in the center, provided with a downward-projecting pin, D, of such diameter as to fit in and pass through the hole *a*. The lower end of the pin D is tapering, and on one side of the same is formed a wing, *d*, the whole forming, as it were, a hook. By turning the single-tree to one side the hook D *d* will enter the opening *a b* in the end of the bar B, and then by turning the single-tree in the proper position it becomes fastened.

This fastening may be used for double-trees and tongues for wagons as well as for single-trees.

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

The single-tree C provided with the hook D *d*, in combination with the pivoted bar B provided with opening *a b*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of February, 1872.

JOHN WILLS.

Witnesses:

AMOS F. CUTTER,
SAMUEL ROCKAFELLOW.