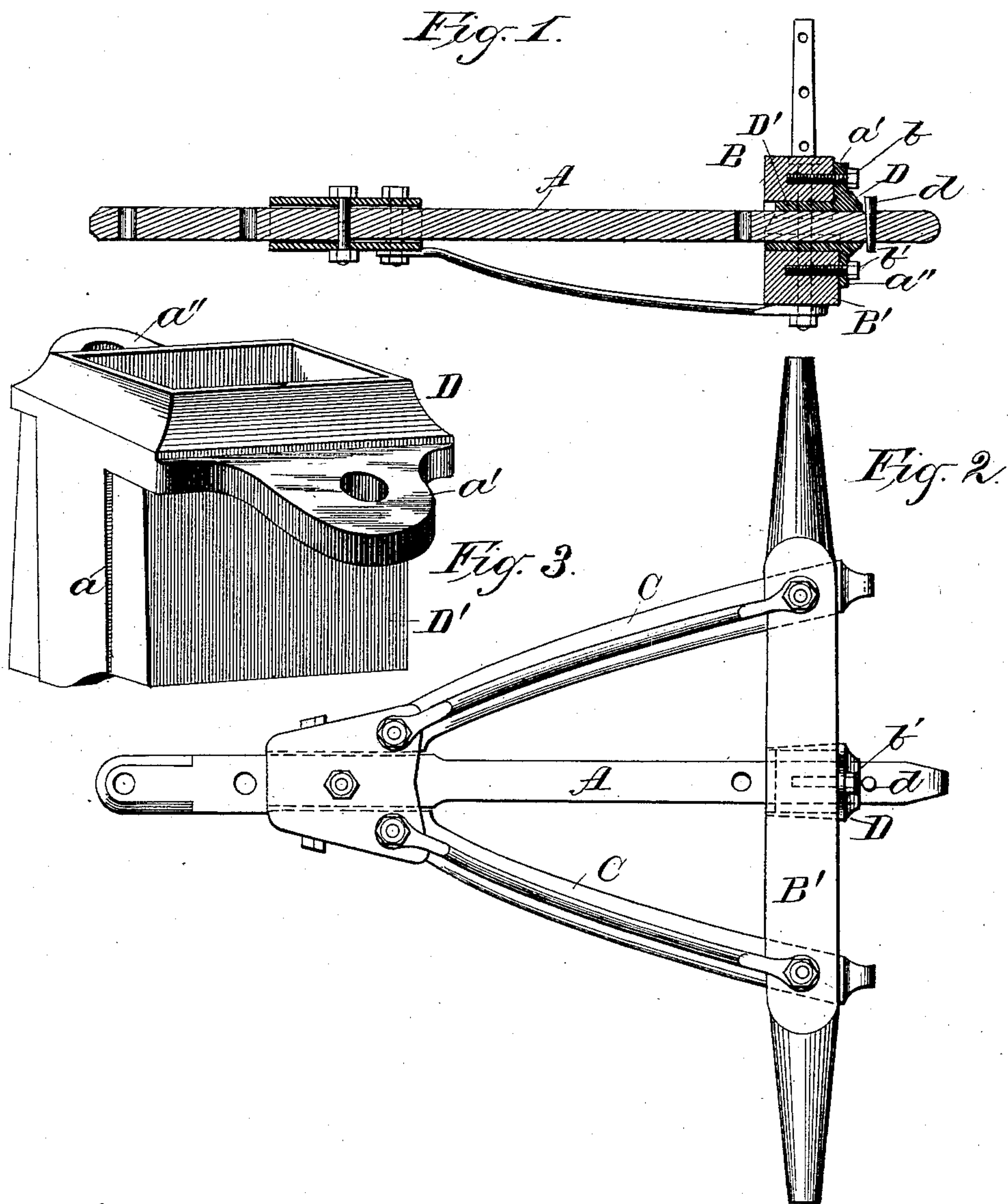


(No Model.)

H. MITCHELL.
WAGON REACH COUPLING.

No. 328,242.

Patented Oct. 13, 1885.



Witnesses:

E. G. Somers
C. J. Rock

Inventor:
Henry Mitchell
By *Stout & Underwood*
Attorneys.

UNITED STATES PATENT OFFICE.

HENRY MITCHELL, OF RACINE, WISCONSIN.

WAGON-REACH COUPLING.

SPECIFICATION forming part of Letters Patent No. 328,242, dated October 13, 1885.

Application filed April 12, 1884. Serial No. 127,643. (No model.)

To all whom it may concern:

Be it known that I, HENRY MITCHELL, of Racine, in the county of Racine, and in the State of Wisconsin, have invented certain new and useful Improvements in Wagon-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates particularly to farm-wagons, and will be fully described hereinafter.

In the drawings, Figure 1 is a longitudinal section of a portion of the rear running-gear of a wagon embodying my invention. Fig. 2 is a bottom plan view of the same. Fig. 3 is a detached view of the bushing, which forms the essential feature of my invention.

A is the reach; B, the rear bolster; B', the rear axle; C, the hounds; D, the coupling-box; D', the reach-bushing. This reach-bushing is preferably cast in the form of a hollow rectangle, with a rib, *a*, on each outer end and flanges *a'* *a''*, which latter are respectively projected up and down from the rear of said bushing, and are each provided with an opening to receive bolts *b b'*. The hollow rectangular portion of the bushing, when in position for use, fits in suitable mortises cut, respectively, in the rear bolster and axle, and is secured to these latter by means of the bolts *b b'* passing through the openings in the flanges *a' a''*.

It will be noticed that the ribs *a* upon the bushing are wedge shaped in a longitudinal direction, the purpose of this construction being to secure a tight joint when said bushing is driven home in the mortises in the bolster and axle. It will be also noticed that the under side of each rib is of greater length than that of the upper, and that the lower flange, *a''*, is offset or out of line with that of the upper flange, *a'*, so as to accommodate the axle B', which is usually wider than the bolster B. By my construction and arrangement of the bushing with relation to the bolster and

axle I am enabled to secure a tight joint, and effectively retain the parts in perfect working order.

The reach is inserted from the front, and slides snugly but easily in the bushing, the length of coupling being regulated by sliding it in or out and adjusting the bolt *d* in the perforations therein.

By the use of my bushing I do away with all liability of binding in wet weather, and protect the coupling against the elements.

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

1. A reach-bushing for wagons, having wedge-shaped ribs upon its outer ends and vertically-projecting flanges upon its rear, substantially as and for the purpose set forth.

2. A reach-bushing for wagons, having formed integral therewith upon its outer ends wedge-shaped ribs and upon its rear vertically-projecting flanges, the latter each provided with a bolt-opening, and the lower one of said flanges offset or out of line with the upper, substantially as and for the purpose specified.

3. A reach-bushing having wedge-shaped ribs upon its outer ends and vertically-projecting flanges upon its rear provided with bolt-openings, in combination with the reach, bolster, and axle of a vehicle, and suitable bolts adapted to pass through the openings in the vertically-projected flanges and enter said bolster and axle, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at the city of Racine, in the county of Racine, and State of Wisconsin, in the presence of two witnesses.

HENRY MITCHELL.

Witnesses:

HENRY G. MITCHELL,
E. W. MARCHER.