

J. Q. ADAMS.
Shaft for Vehicles.

No. 209,540.

Patented Nov. 5, 1878.

Fig. 1.

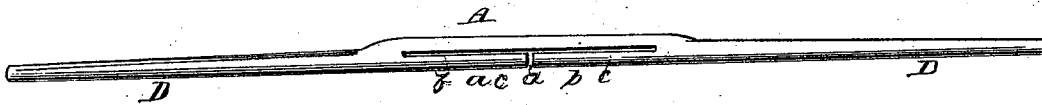
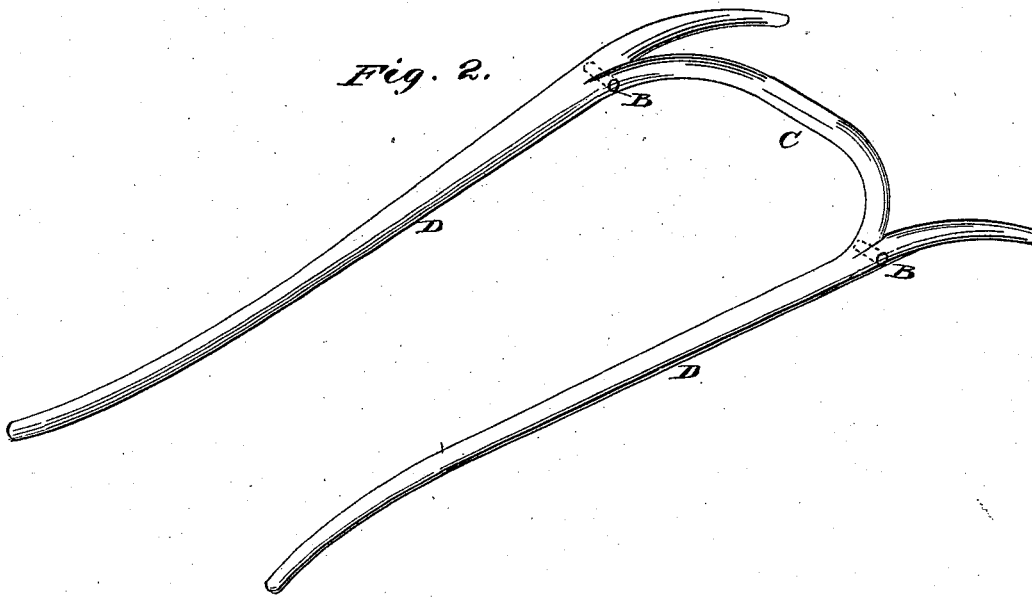


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN Q. ADAMS, OF ROYAL OAK, MICHIGAN.

IMPROVEMENT IN SHAFTS FOR VEHICLES.

Specification forming part of Letters Patent No. 209,540, dated November 5, 1878; application filed August 23, 1878.

To all whom it may concern:

Be it known that I, JOHN Q. ADAMS, of Royal Oak, in the county of Oakland and State of Michigan, have invented certain new and useful Improvements in Combined Shafts and Cross-Bar for Vehicles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a view of the blank before bending, and Fig. 2 is a view of the combined shafts and cross-bar after bending.

This invention relates to certain improvements in combined shafts and cross-bar for vehicles; and it consists of a pair of shafts and a cross-bar constructed from one piece, as hereinafter fully described, and particularly pointed out in the claim.

In the accompanying drawings similar letters of reference indicate corresponding parts in the figures.

The blank A may be dressed as nearly as possible to the required shape (the outline of which is shown in Fig. 1) before the notch *a* and gains or slots *b b* are cut therein, thus forming stubs *c c*, the ends of which face each

other at the notch *a*, which is at the center of the blank. It should be then steamed and bent to the shape shown in Fig. 2, and dressed to the required shape. Bolts B are then inserted at what may be termed the "junction of the shafts and the cross-bar C," to strengthen them, and the ordinary ironing may be proceeded with.

It will be seen therefore that the shafts D and the cross-bar C are constructed of one piece of timber, requiring no mortises or tenons, and having the grain of the wood running in lines and curves that impart to the device the greatest amount of natural strength.

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

The combined shafts and cross-bar formed of the blank A, and provided with the bolts B B, substantially as and for the purpose herein set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN Q. ADAMS.

Witnesses:

BRIGGS T. GROW,
JOHN W. BROCK.