J. B. BREWSTER.

TRUSSED AXLETREE.

No. 186,227. Patented Jan. 16, 1877.

Fig. 1

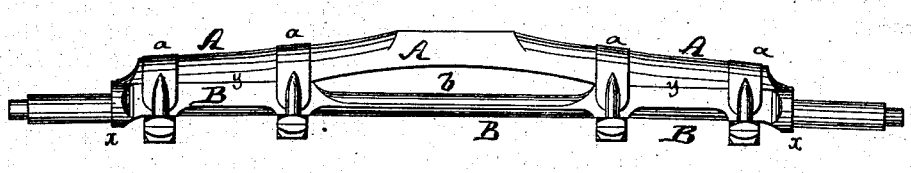
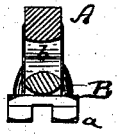


Fig. 2



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES B. BREWSTER, OF NEW YORK, N. Y.

IMPROVEMENT IN TRUSSED AXLE-TREES.

Specification forming part of Letters Patent No. **186,227**, dated January 16, 1877; application filed August 22, 1876.

To all whom it may concern:

Be it known that I, JAMES B. BREWSTER, of New York city, in the county and State of New York, have invented a new and Improved Truss-Arch Axle-Tree, of which the following is a specification:

My invention consists of a trussed axle, constructed, as fully described hereafter, to reduce the weight of the metallic portion, insure rigidity, prevent interference with the wheels, and lessen the cost of manufacture.

In the accompanying drawing, Figure 1 is a side view, and Fig. 2 a transverse section, of the improved axle.

The metallic portion B is of the general shape of an ordinary straight metal axle, having the usual journals at the ends and shoulders *x x*, but flattened on the top, adjacent to each shoulder, to form a flat face, *y*, of a length about one-fifth that of the axle. The wooden portion A is arched at the center, and flattened at the ends which bear upon the metallic portion B, the extreme ends terminating inside the shoulders *x x*, and clips *a a* serve to confine the ends of the section A in close frictional contact with the bearing-faces *y y*, forming a trussed axle.

The long bearings *y y* impart rigidity to that part of the arch between the central and end bearings, and insure the transmission of the vertical pressure at the center of the arch into a longitudinal strain on the metallic bar B, while the latter is so braced by the arched portion that it may be made much lighter in weight than where a straight wooden strip is bolted thereto, as usual.

By clamping the ends of the arched portion upon long friction-bearings the secure attachment is obtained without perforating the axle, as heretofore in trussed axles, while the ends of the arched portion, being inside of the shoulders *x x*, will not be forced against the hubs in case of spreading of the arch.

I claim—

The within-described trussed axle consisting of the straight metallic portion B, having journals at the ends, and provided with shoulders *x x* and bearing-faces *y y*, and the arched portion A, having long flat bearing ends, confined to the axle-bearings by clips *a a*, and terminating inside the shoulders *x x*, as set forth.

The above specification of my invention signed August 18, 1876.

JAMES B. BREWSTER.

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