(No Model.)

O. J. WILLIAMS.

WAGON AXLE TRUSS.

No. 378,535. Patented Feb. 28, 1888.

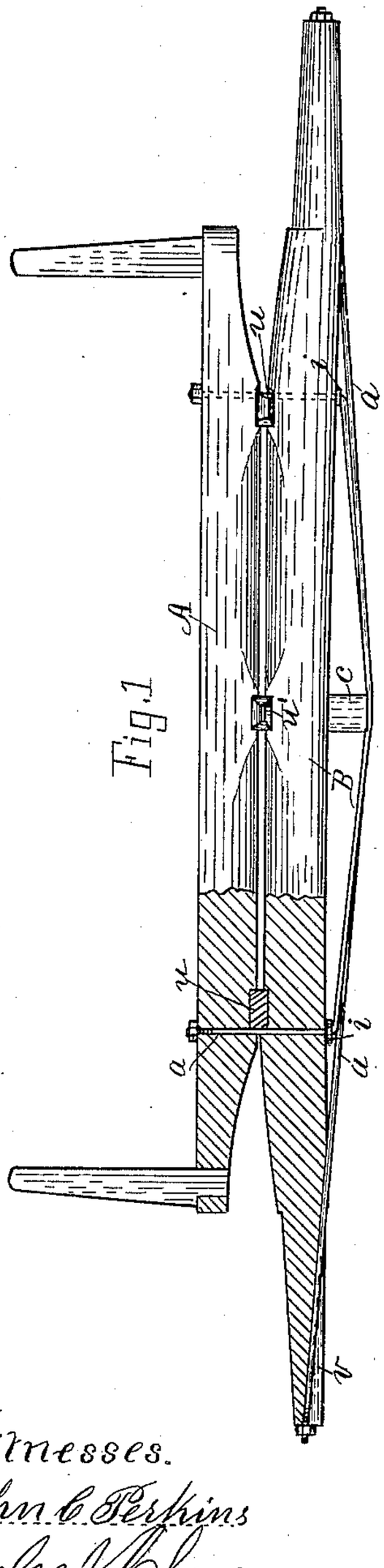

Fig. 1

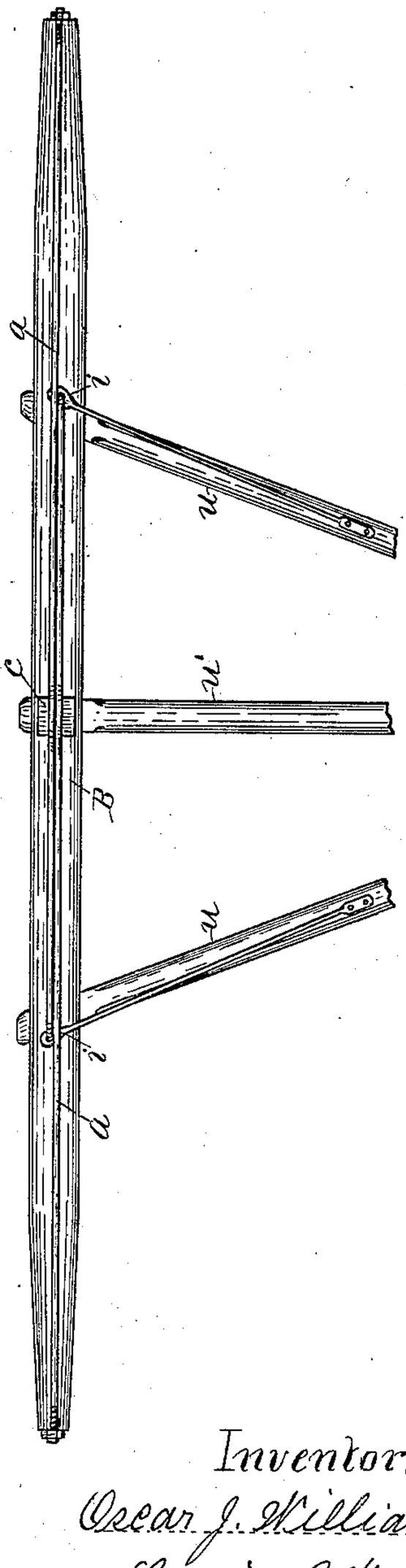

Fig. 2

Witnesses.
John C. Perkins
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Atty.

UNITED STATES PATENT OFFICE.

OSCAR J. WILLIAMS, OF LAWTON, MICHIGAN.

WAGON-AXLE TRUSS.

SPECIFICATION forming part of Letters Patent No. 378,535, dated February 28, 1888.

Application filed May 27, 1887. Serial No. 239,550. (No model.)

To all whom it may concern:

Be it known that I, OSCAR J. WILLIAMS, a citizen of the United States, residing at Lawton, county of Van Buren, State of Michigan, have invented a new and useful Wagon-Axle Truss, of which the following is a specification.

This invention has for its object the below described and claimed construction designed to effect certain useful results set forth.

In the drawings forming a part of this specification, Figure 1 is an elevation of the trussed axle, portions being in section; and Fig. 2 is an under plan view of Fig. 1.

Referring to the lettered parts of the drawings, B is an axle and A a bolster for heavy wagons. Between the axle and bolster are the ends of the ordinary reach, *u'*, and braces *u u*.

One end of the truss-rods *a* is passed through a slot in the end of the axle, as at *v*, Fig. 1, and secured at the end by a nut, as heretofore. While I prefer this ordinary plan, of course this end of the truss-rods may be otherwise attached to the axle. From thence the rods *a* extend and lap by each other, as shown in Fig. 2, terminating in a right-angled end passed up through the axle and bolster, Fig. 1. The upper end of the rod is threaded and provided with a nut, as shown. Thus this end of the lapping truss-rods is not only firmly attached to the axle, but it serves the office of bolts, which would be otherwise used to secure the bolster to the axle. This bolt end of the truss-rods passes through an eye in the end of the iron braces *i*, thus holding said end and it forming a washer or metal face around the hole in the axle at the bend in the truss-rod.

Of course, if preferred, the truss-rod may have an eye registering with the hole in the axle and the ordinary bolt be passed up through it in lieu of the truss-rod, forming a bolt at the end.

The truss-rods may rest directly on the eyed end of the braces *i*, so as to bind closely to the axle, and ordinarily this will be best. The lapping truss-rods *a* rest on the block or projection *c* between them and the under side of the axle B. The axle here shown is the rear one; but the front axle may be trussed in like manner. With this lapping truss the entire length of the axle is trussed by both rods, and also the central portion, and each individual rod trusses independently separate portions of the axle, and, if necessary, one rod may be tensioned tighter than the other.

Having thus described my invention, what I claim is—

1. A vehicle-axle having a projection on the under side, combined with a truss composed of two rods, their inner ends being lapped by each other and extending well outward beyond the axial projection upon which both rods rest, and each lapped end being attached to the axle at individual points a little removed from the inner end of the skeins, whereby each rod independently trusses separate portions of the axle each side of its center between its ends, substantially as set forth.

2. In combination with a vehicle axle and bolster, the lapping truss-rods having the angled ends passed up through the axle and bolster and serving as bolts, substantially as set forth.

3. In combination with a vehicle-axle and the braces having the eyed end, the lapping truss-rods having the bolt end passed up through the eye of the brace and the hole in the axle, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in presence of two witnesses.

OSCAR J. WILLIAMS.

Witnesses:

JOHN C. PERKINS,

BENJAMIN F. RIX.