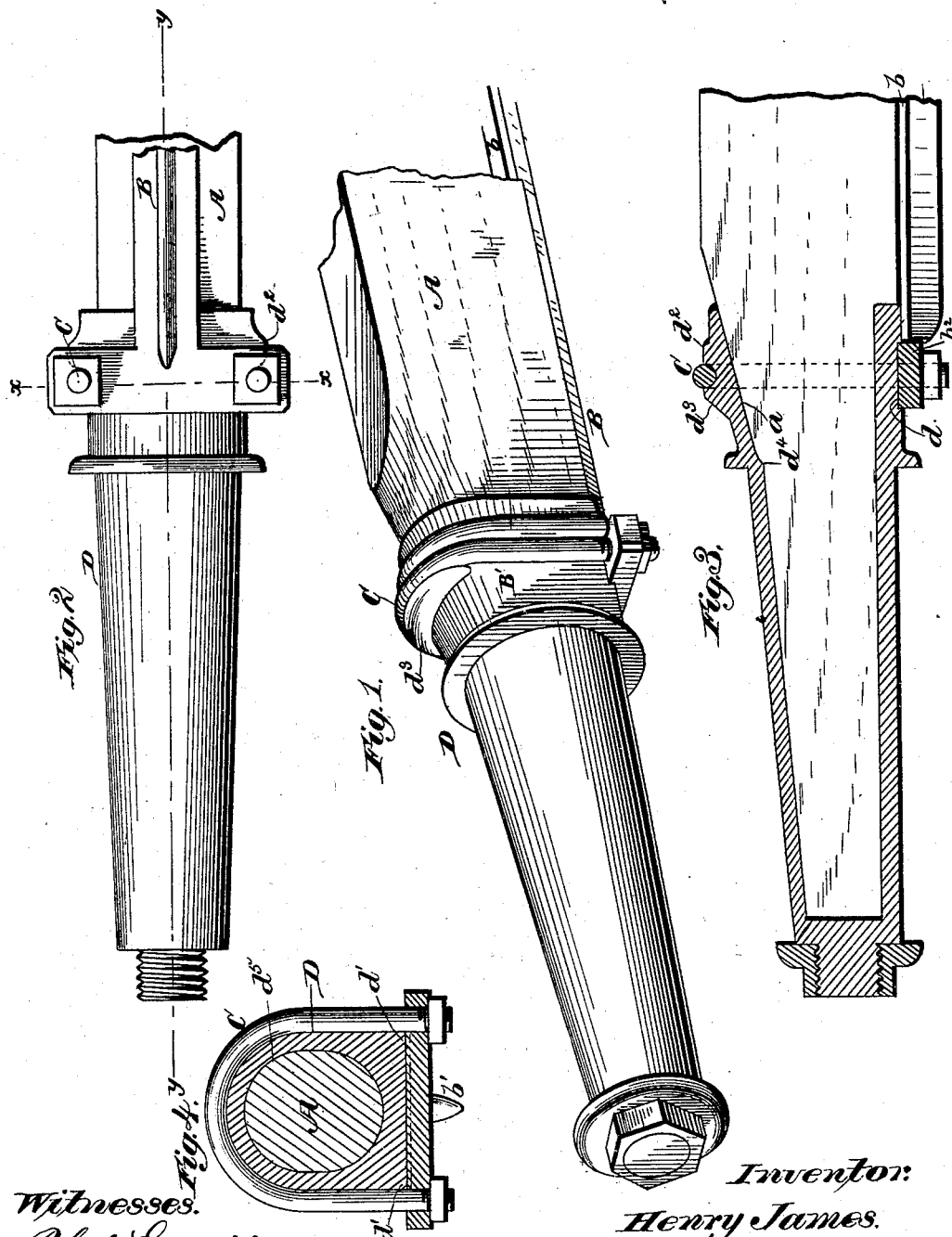


(No Model.)

H. JAMES.  
WAGON AXLE.

No. 267,084.

Patented Nov. 7, 1882.



Witnesses.

Robert Everett.  
George W. Rea

Inventor:

Henry James.

By James L. Norris.  
Atty.

# UNITED STATES PATENT OFFICE.

HENRY JAMES, OF MEMPHIS, TENNESSEE.

## WAGON-AXLE.

SPECIFICATION forming part of Letters Patent No. 267,084, dated November 7, 1882.

Application filed September 7, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY JAMES, a citizen of the United States, residing at Memphis, Shelby county, Tennessee, have invented new and useful Improvements in Thimble-Skeins and Truss-Rods for Wagon-Axles, of which the following is a specification.

My invention relates to certain improvements in thimble-skeins and truss-rods for wagon-axles; and it consists in certain features hereinafter described and specifically set forth in the claim.

Referring to the drawings, Figure 1 is a perspective of a thimble and truss constructed in accordance with my invention. Fig. 2 is a bottom view; and Figs. 3 and 4 are respectively a vertical longitudinal and a vertical transverse section, the latter on the line  $x x$  of Fig. 2.

A indicates the wooden axle-tree, which is strengthened and prevented from springing by means of a truss-bar, B. This truss-bar, which extends from end to end of the axle-tree, is made of T-iron and has its head portion  $b$  fitted against the under side of the axle-tree, whereby the latter is more effectively strengthened and prevented from springing than if the truss-bar were maintained in a plane below the axle-tree by means of intermediate connections. Such arrangement also admits of ordinary clips being employed for firmly binding together the axle-tree and the truss-bar. The truss-bar is provided at each end with a T or cross head,  $b^2$ , which is received in a recess,  $d$ , formed transversely in the under side of the throat or inner end of the thimble-skein. Each cross-head  $b^2$  thus formed at the end of the truss is held in its respective seat by means of a clip, C, which is fitted upon the thimble-skein and passed through the arms of the head  $b^2$ , so that by tightening the nuts on said clip against the T-head the latter will be held in rigid connection with the thimble-skein, and the two thimble-skeins also held securely upon the axle-arms.

The thimble-skein D has its bore preferably formed with an oval-shaped bore,  $d^5$ , in which the correspondingly-formed axle-arm is fitted. The inner end or throat portion, B', of the thimble is flattened upon its base or bottom and formed with substantially-vertical sides, whereby there will be an increased thickness of metal at the corners  $d'$   $d'$  and a flat bearing provided for the T-head of the truss. The lower bearing portion of the skein-thimble is somewhat thicker than its upper portion, so that the thimble will be strong and durable and capable of resisting strain. The upper portion of the throat is considerably thickened, as at  $d^3$ , and in said thickened part of the throat is formed a groove,  $d^2$ , in which the upper portion of the clip is seated, and thereby prevented from slipping. The increase of metal on the inner end or throat portion of the thimble-skein, while providing a seat for the clip, as just stated, also serves to re-enforce the throat. By such construction the number of parts is reduced to the minimum and the thimble-skeins held securely on the axle-arms and prevented from slipping by means of the truss.

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

The combination, with the axle-tree A and the skein, of the T-shaped truss-bar B, formed at its end with a cross-bar,  $b^2$ , seated in a transverse recess in the skein, and the clip C seated on the skein and having its ends passed through the ends of the cross-bars formed on the truss-bar and confined in place by nuts or similar means, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HENRY JAMES.

Witnesses:

J. M. CARVER,  
N. M. LONG.