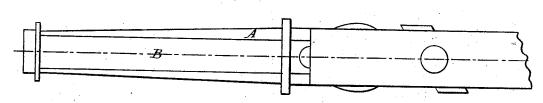
## S. P. LOVELACE. Vehicle Axle-Skeins.

No. 196,367.

Patented Oct. 23, 1877.







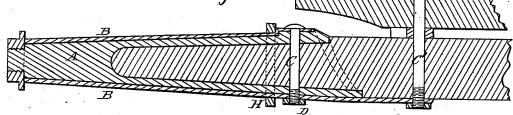


Fig. 3, E



WITNESSES

Mary J. Ulley.

INVENTOR Stephen P. Lovel

Chipman from ACa,

ATTORNEYS

## UNITED STATES PATENT OFFICE.

STEPHEN P. LOVELACE, OF LANCASTER, ASSIGNOR, BY MESNE ASSIGNMENTS, TO JOHN SHORT, OF COLUMBUS, OHIO.

## IMPROVEMENT IN VEHICLE-AXLE SKEINS.

Specification forming part of Letters Patent No. 196,367, dated October 23, 1877; application filed May 16, 1877.

To all whom it may concern:

Be it known that I, STEPHEN P. LOVELACE, of Lancaster, in the county of Fairfield and State of Ohio, have invented a new and valuable Improvement in Wagon-Thimbles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my skein, and Fig. 2 is a longitudinal vertical sectional view of the same. Fig. 3 is a transverse vertical sectional view of

My invention relates to wagon thimbles and skeins; and it consists in a novel construction thereof, by which a thimble of cast-iron is reenforced with skeins of steel, as hereinafter described.

A of the drawings represents my wagonthimble. It is constructed of cast-iron, and has grooves or recesses formed in its upper and lower sides to receive the skeins.

The letter B represents my skeins. They

consist of bars of steel adapted to fit in the recesses formed in the spindle at top and bottom, and are firmly attached to said spindle by means of bolts C C' and nut D. I also usually surround said spindle and skeins by a ring or band, H. I sometimes dispense with recesses in the spindle, and substitute therefor flattened sides to receive the skeins.

I am aware that steel skeins have been used with wooden spindles, and also that cast-iron thimbles are not new. I do not, therefore, claim either, broadly; but

What I claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, the castiron thimble A, re-enforced at top and bottom by the steel skeins B, extending the entire length of the thimble, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

STEPHEN P. LOVELACE.

Witnesses:

JOHN S. BRASEE, H. C. DUNKLE.