P. NEDER.

Vehicle-Axle Skein.

No. 218,053. Patented July 29, 1879.

Fig. 1.

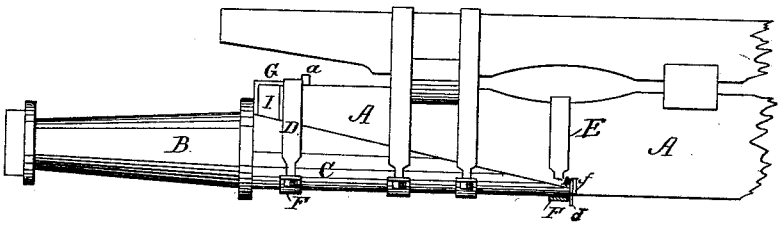

Fig. 2.

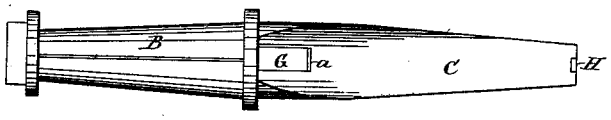

Fig. 3.

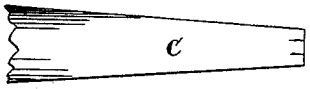

Fig. 4.

WITNESSES:

W. W. Hollingsworth

Amos Br. Hart.

INVENTOR:

Philip Neder

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

PHILIP NEDER, OF STOCKTON, ASSIGNOR OF ONE-HALF HIS RIGHT TO LEONARD COTTRELL, OF SALT LAKE CITY, UTAH TERRITORY.

IMPROVEMENT IN VEHICLE-AXLE SKEINS.

Specification forming part of Letters Patent No. **218,053**, dated July 29, 1879; application filed October 5, 1878.

To all whom it may concern:

Be it known that I, PHILIP NEDER, of Stockton, in the county of Tooele, Utah Territory, have invented a new and Improved Axle-Skein; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improvement in the class of wooden axle-skeins which are provided with a tapering extension for receiving the ends of the axle.

The improvement relates to the construction of the skein with devices in the nature of hooks, by which it is secured to the axle, so as to prevent its endwise movement thereon.

In the accompanying drawings, Figure 1 is a rear-side view of a fragment of a wagon-axle having my improved axle-skein attached thereto. Fig. 2 is a plan view of the skein arm or extension detached, showing its end slitted. Fig. 3 is a side view of a fragment of the skein. Fig. 4 is an end view of the skein.

A indicates the wooden axle; B, the skein proper, and C the tubular tapered extension of the skein, which receives the end of the axle, and is clamped tightly thereto by means of bands D E and cross-bars F. The end of the axle has the same thickness as its middle portion, or, in other words, the axle is not diminished in size, and is therefore not weakened at its ends.

The devices which constitute my invention are the angular bar or hook G and the flanges or hooks H. The hook G is attached to the inner end of the skein proper, or, what is the same thing, to the outer end of the arm C, and is bent at a right angle, so that its horizontal portion lies in contact with the upper side of the axle, and passes under the band D, with which its lip or claw *a* engages. A shoulder, I, is formed on the upper side of the end of the axle, which prevents the band D slipping on the latter in that direction.

The flanges or hooks H are formed by slitting the inner end of the tapered extension C, as shown in Fig. 3, and bending the middle and outer divided portions, respectively, up and down, as shown in Fig. 4. The outer claws or hooks, *d*, thus formed, engage the cross-bar F of band E, and the other or middle claw or hook, *e*, enters a kerf or open notch, *f*, formed in the under side of the axle.

It will be seen that the hooks G H prevent the skein from moving on the axle endwise. The skein is, in fact, so firmly and immovably attached to the axle as to have nearly the same rigidity as if it were an integral part of the axle.

I thus remedy what has been a serious defect in other inventions of this class. I may, however, in some cases dispense with hooks G, since the hooks H will hold the skein immovable under ordinary conditions or when subjected to ordinary strain.

What I claim is—

1. The combination of the skein and its arm or extension C, having hooks G H, with the axle, having shoulder I and kerf *f*, and the bands and cross-bars D E F, substantially as shown and described.

2. The combination, with the axle having the kerf *f*, and band and cross-bar E F, of the skein arm or extension C, having the flanges or hooks H formed on its inner end, as shown and described, for the purpose specified.

3. As an article of manufacture, the axle-skein having the tubular tapered arm or extension C and the hooks G H, as shown and described.

PHILIP NEDER.

Witnesses:
C. W. STAYNER,
JOS. F. SIMMONS.