

Elisha H. Wheeler.
Impt. in Wagon Axles.

Patented Jan. 30, 1872.

No. 123,135.

Fig. 1.

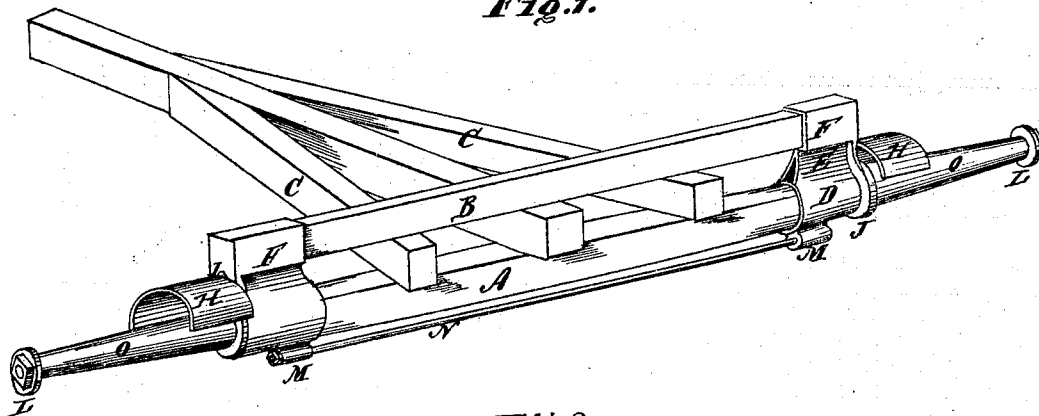


Fig. 2.

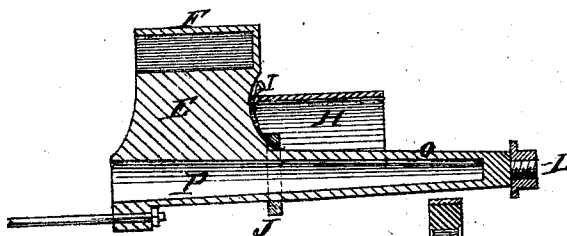
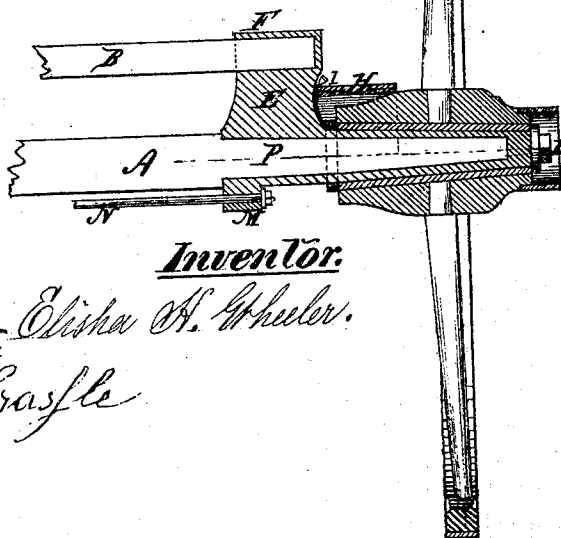


Fig. 3.



Witnesses.

Inventor.

James S. Fullerton
Fredrick Brasle

UNITED STATES PATENT OFFICE.

ELISHA H. WHEELER, OF MEMPHIS, MISSOURI.

IMPROVEMENT IN WAGON-AXLES AND THIMBLE-SKEINS.

Specification forming part of Letters Patent No. 123,135, dated January 30, 1872; antedated January 12, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, ELISHA H. WHEELER, of the town of Memphis, in the county of Scotland and State of Missouri, have invented a new and useful Improvement on Wagon-Axles and Thimble-Skeins; and I do hereby declare the following to be a full and exact description of my invention.

My invention consists of certain improvements in the mechanical construction of wagon-axles and thimble-skeins, whereby greater strength and durability are obtained and a more perfect shape and adjustment or set of the spindle is secured.

To enable others skilled in the art to construct and use my invention, I will proceed to describe its construction, reference being had to the accompanying drawing, of which—

Figure No. 1 is a perspective view. Fig. No. 2 is a sectional view of the thimble-skein; and Fig. No. 3 is a sectional view of the axle and thimble-skein, showing the shape of the spindle and its adjustment to the position or set of the wheel and axle.

I construct a thimble-skein, D, with an arm, E, sheath F, flange H, oil-cup I, collar J, spindle O, nut-washer L, lug M, and tension-rod N, as is shown in drawing, Fig. No. 1. The axle A is inserted into the thimble-skein D, and the bolster or sunboard B is inserted into the sheath F, and the tension-rod N passes through the lugs M M and connects the thimble-skeins D D together, and is made tight by means of a screw-thread and nut. Flange H projects out from arm E, and is made concave to conform to the shape of the hub of a wheel, and may be cast to the arm E or made separate and secured in position by bolts or otherwise. The collar J is formed around the thimble-skein D at the base or larger diameter of the spindle O, and is the shoulder for the wheel upon its inside. The spindle O is a section of a perfect cone, and is the journal upon which the wheels turn or rotate. L is the nut-washer, of usual form and construction, and secures the wheels on the spindle O, as is seen in Fig. No. 3. The oil-cup I is constructed upon the outer side of arm E, and has an outlet upon the top of the spindle, after passing under the collar J, as is shown in Fig. No. 2, and having its mouth or entrance above the flange H, as shown in Fig.

No. 1. I construct the spindle O, Fig. 1, with a taper or decrease in its diameter from its base, at collar J, to the nut-washer L, of eight-twelfths of one inch in one foot in length, the spindle O thus being a section of a perfect cone twelve inches long, and whose smaller diameter is eight-twelfths of one inch less than its greater diameter; and any shorter spindle than twelve inches is constructed by shortening the spindle O, without changing the taper or form otherwise.

By this form of spindle I obtain the true and proper adjustment or set of the wheels, with the bottom line of the spindle O parallel with the bottom line of the axle and the bottom line of each other, as is shown in Fig. No. 1, thus obviating all tendency of the wheels to wear upon the collar J, on the one hand, or the nut-washer L upon the other, and thus obtaining a perpendicular or face at right angles to the bottom line of the spindle O of the spokes and wheel upon its lower part, with a disk of three-fourths ($\frac{3}{4}$) of one inch in the wheel, as is shown in Fig. No. 3, the wheel standing at right angles to the center line P, Fig. 3.

The position of a wheel without a disk is shown by the dotted lines *f f*, and would not face at right angles to the bottom line of the spindle, as seen in Fig. 3.

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

1. I claim the arm E, sheath F, and lug M, in combination with the thimble-skein D.

2. I claim the combination of the thimble-skein D, arm E, sheath F, lug M, tension-rod N, axle A, and bolster or sunboard B.

3. I claim the spindle O, with its taper of eight-twelfths of one inch to the foot of its length, in combination with the axle A, with the bottom line of the spindle O parallel to the bottom line of the axle A, and the set or adjustment of the wheel, when dished with the lower half of its face or outer side, at right angles to the bottom lines of the spindle O and axle A, substantially as and for the purpose set forth.

All of which claims I make substantially as and for the purposes set forth.

Witnesses: ELISHA H. WHEELER.

S. McDONALD,
C. A. HOLLEY.