

T. M. CLUXTON.

Wagon Axle.

No. 101,586.

Patented April 5, 1870.

Fig. 1

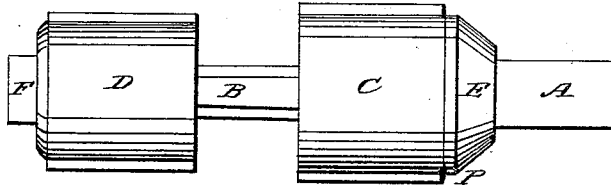


Fig. 2

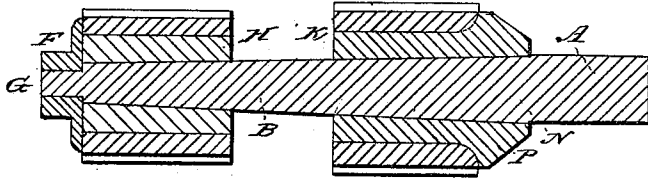


Fig. 3

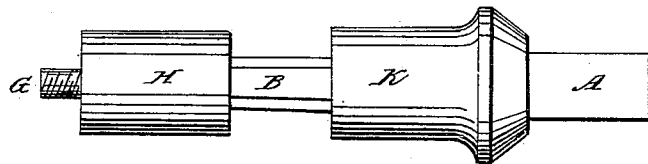


Fig. 4

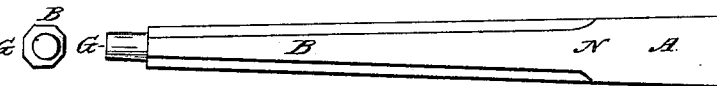


Fig. 5

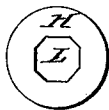
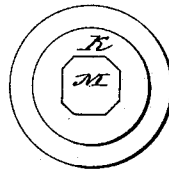


Fig. 6



Witnesses:

W. Hammond
And. Chaffin

Inventor:

Thomas M. Cluxton
By Job abbot
Attorney

United States Patent Office.

THOMAS M. CLUXTON, OF RISING SUN, INDIANA.

Letters Patent No. 101,586, dated April 5, 1870.

IMPROVEMENT IN WAGON-AXLES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, THOMAS M. CLUXTON, of Rising Sun, in the county of Ohio and State of Indiana, have invented certain new and useful Improvement in Wagon-Axles; and I do hereby declare that the following is a full, clear, and exact description of my invention, which will enable others skilled in the art to make and use the same.

My invention relates to certain improvements in the construction of wagon-axles; and

It consists in the construction of a wagon-axle consisting of a wrought-iron or steel bar, which is drawn out into a tapering spindle form of an angular section at the ends, and on which are secured cast axle-thimbles, which form the bearing-parts on the axle for the wheel-hub.

The advantages resulting from this construction consist in the fact that the axle can be made of a single bar of iron or steel without any welding, in place of having to make two welds as is the case in making the common form of axle, in which the two spindles are made separately and are welded to a central piece; and, also, in the fact that this construction allows of the shoulder of the spindle, which is the part most liable to break, being made as large as desired to give the proper strength, the inner axle-thimble being made to conform to this enlarged shoulder; and a further advantage being in the facility with which the axle-thimbles can be removed and replaced by new ones when worn, thus keeping a perfect bearing of the axle in the hub, which cannot be done in the old forms of axles.

This construction is of peculiar utility in a new country, where the blacksmith is not provided with lathes and other tools for doing round work, as the axle-thimbles could be furnished by the hardware merchants, and he could work the axle-bar with ordinary tools so that the axle-thimbles would fit perfectly on it, thus enabling him to produce a cheap and perfect wagon-axle.

In the drawings annexed to and forming a part of this specification—

Figure 1 is a view of my improved axle, with the hub-thimbles thereon.

Figure 2 is a longitudinal section of same.

Figure 3 is a view of the axle.

Figures 4 are views of the axle-bar.

Figures 5 and 6 are end views of the axle-thimbles.

The axle-bar A (one end of which is shown in drawings) consists of a square or other suitable section of iron or steel bar, on the ends of which are formed the spindles B, which are of the tapering form shown, and which are made of an octagonal section, as shown in fig. 4, although other angular sections could be used if preferred, the object being to have such a section as could be easily hammered and filed up, and on which the axle-thimbles would not revolve.

The threaded bolt G is formed at the end of the spindles B, and on it is arranged the nut F, by which the wheel is secured on the axle.

The axle-thimbles H and K are conveniently made of cast-iron, although other cast metal or wrought iron could be used, and their outer surfaces are turned to the conical form required for the hub-box, while the holes L and M in their centers are made of an angular section corresponding to that of the spindle B, and of such sizes as to bring the thimbles into their proper position on the spindles when driven up to place, as shown in figs. 2 and 3.

The inner axle-thimble K is made with a collar, P, which serves as the shoulder for the hub-box or inner hub-thimble C, as is readily seen.

The ordinary form of hub-box may be used if desired, but the hub-thimbles C and D, of a common form, will be found cheaper and nearly as good for common work.

It is readily seen, from this description, that the shoulder N of the spindle B can be made as large as required to attain any desired strength, either by upsetting the axle-bar or by welding on strengthening pieces, as the inner axle-thimble K can be cut away under the collar P to allow it to fit over this enlarged shoulder; and it is also evident that these axle-thimbles H and K could be readily removed and replaced by new ones when badly worn, the hub-thimbles C and D being also changed to correspond with the new axle-thimbles K and H, if found desirable.

Where an axle of the ordinary form has become worn so as to fit badly in the hub-box, I take thin axle-thimbles H and K, with center-holes L and M made in a circular form, and of a size suitable to allow of their fitting on the worn axle; I then drive them to place on said worn axle, and bore out the hub-box, or put new hub-thimbles in the hub, so as to get a perfect fit of the hub-box or new hub-thimbles on the new axle-thimbles H and K, when it is evident that the wheel will again work perfectly on the axle.

I do not claim as new the hub-thimbles herein shown, as these have been before shown, but

What I do claim as new and of my invention, and desire to secure by Letters Patent, is—

The improved wagon-axle herein described, consisting of the axle-bar A having the spindles B of an angular section, formed at its ends, and provided with the axle-thimbles H and K, the latter formed with the collar P, fitted on the spindles B, substantially as and for the purpose specified.

As evidence that I claim the foregoing, I have heretofore set my hand in the presence of two witnesses, this 1st day of February, A. D. 1870.

T. M. CLUXTON.

Witnesses:

WM. CONAWAY,
JAMES HEMPHILL.