

C. HOTZ.  
Vehicle-Axle Skein.

No. 213,990.

Patented April 8, 1879.

Fig: 1.

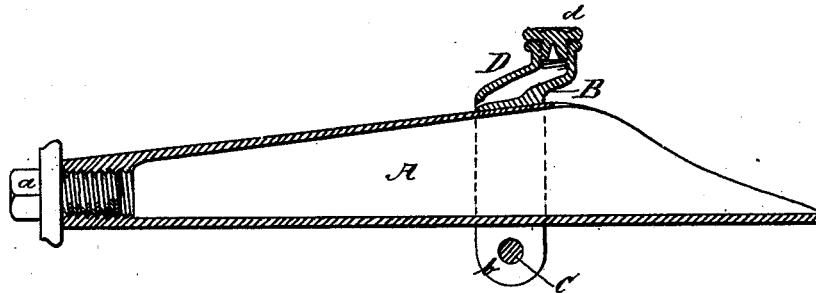


Fig: 2.

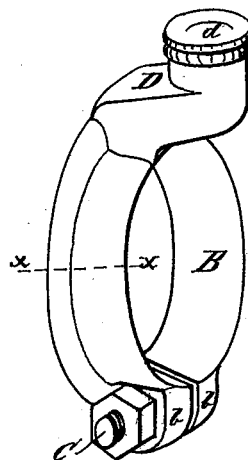


Fig: 3.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN VEHICLE-AXLE SKEINS.

Specification forming part of Letters Patent No. **213,990**, dated April 8, 1879; application filed February 1, 1879.

*To all whom it may concern:*

Be it known that I, CHRISTOPH HOTZ, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Axle-Skeins for Vehicles; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The nature of my invention relates to an improvement in that kind of axle-skeins which are formed of a thin sheet of steel; and my improvement consists in the peculiar construction of the collar or butting-ring which I have arranged to be clamped upon the skein.

In the drawings, Figure 1 represents a longitudinal vertical section of an axle-skein having my clamp-collar attached. Fig. 2 represents a perspective view of the said clamping-collar, and Fig. 3 an enlarged transverse section of said collar on line *x x* in Fig. 2.

A is the skein, formed of sheet metal in the usual manner, with its small end internally screw-threaded for receiving the end collar screw *a*. B is the annular butting-ring for the rear end of the wheel-hub, preferably made of malleable iron, sectionally shaped as shown in Fig. 3, and with a conical inner face corresponding with the taper of the axle-skein. This ring is cast with a narrow split in the bottom of its rim, and with projecting eyed lugs *b*, for receiving the clamp-bolt C, by which the said ring is contracted and tightened upon the skein. The top of said collar is provided with a rearward-extending lubricating-box, D, having a forwardly-tapering channel, with a narrow outlet to the front face of the collar, in close proximity to the edge of its internal periphery. The mouth of this oil-chamber is internally screw-threaded, and is closed by a screw-plug, *d*.

Heretofore the butting-rings were secured upon such thimble-skeins by contraction in cooling after being heated, which, however, necessitated careful workmanship to insure a good job, since otherwise the iron of the ring

will either be overstrained, so as to be apt to tear asunder, or the ring will not be sufficiently permanent, when after a short time it will become loose, while my above-described clamp-collar can be rigidly secured to its desired position, and whenever it will work loose it can be retightened without being compelled to take the vehicle to a blacksmith-shop. This collar can also be readjusted to compensate for any lateral wear of the box or collars, which is another great advantage of my above-described device.

Where the butting-rings are shrunk upon or forged solid with the skein or axle, an oil-cup cannot be arranged therein without requiring considerable labor, while such an oil-chamber is of great convenience, since it enables the lubricating of the axle-spindle without removing the wheel; therefore another good feature to the use of my clamp-collar.

I do not wish to be restricted with the above-described clamp-collar to its application on thimble-skeins alone, since the same can be advantageously applied to any kind or style of axle-spindles as well.

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

1. In combination with a thimble-skein for vehicles, the butting-ring B, having a split rim with a suitable clamping device, substantially as and for the purpose set forth.

2. In combination with a thimble-skein for vehicles, the butting-ring B, having a split rim with eyed lugs *b*, and bolt C, for clamping the same upon said skein, substantially in the manner and for the purpose described and shown.

3. The butting-ring B for thimble-skeins of vehicles, having a split rim with eyed lugs, and bolt C, adapted for clamping to its position upon said skein, and provided with an oil-chamber, D, substantially as and for the purpose specified.

CHRISTOPH HOTZ.

Witnesses:

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