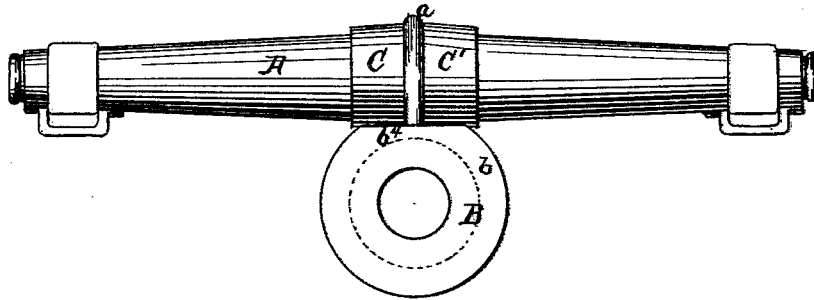


C. F. WHIPPLE.  
NECK-YOKE.

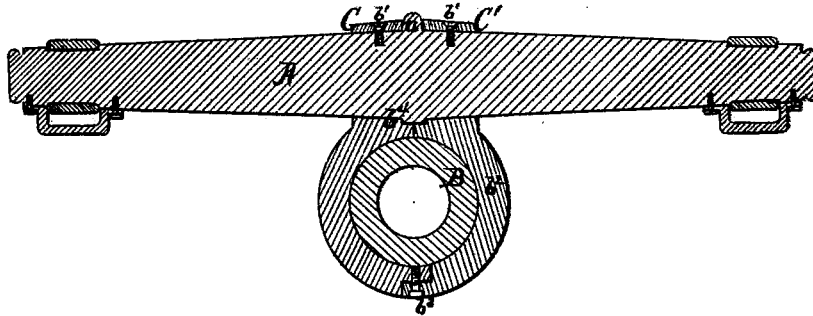
No. 180,812.

Patented Aug. 8, 1876.

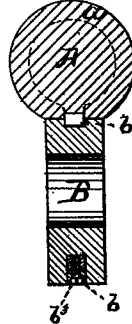
*Fig 1.*



*Fig 2.*



*Fig 3.*



*Witnesses:*  
*Henry Cichling.*  
*B. S. Lark*

*Inventor:*  
*Clarence F. Whipple*  
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*Attys.*

# UNITED STATES PATENT OFFICE.

CLARENCE F. WHIPPLE, OF GRAND RAPIDS, WISCONSIN.

## IMPROVEMENT IN NECK-YOKES.

Specification forming part of Letters Patent No. **180,812**, dated August 8, 1876; application filed April 5, 1876.

*To all whom it may concern:*

Be it known that I, CLARENCE F. WHIPPLE, of Grand Rapids, county of Wood and State of Wisconsin, have invented an Improvement in Neck-Yokes for vehicle-poles, of which the following is a specification, reference being had to the accompanying drawings, forming part hereof.

My invention relates to the neck-yokes employed to hold the poles of vehicles, such as carriages, light wagons, and buggies; and it consists in a solid ring or tubular washer of india-rubber attached to the yoke, and through which the end of the pole passes, as hereinafter particularly set forth and described.

Figure 1 is a front elevation of a neck-yoke embodying my invention. Fig. 2 is a longitudinal central section view of the same; and Fig. 3 is a vertical central sectional view through the india-rubber ring or washer.

A is the neck-yoke. Upon the center of the yoke is turned the circumferential rib *a*, as shown. B is the india-rubber ring or tubular washer. This I cast in one solid piece, and with the deep circumferential groove *b*, as shown.

To fasten the ring B upon the yoke I employ the two rings C C', one being slipped on to the yoke at each end, and passed up to the rib *a*, one on each side thereof, as shown. These rings are made with their interior surfaces to conform to and fit snugly upon the face of the yoke on either side of the rib *a*, and are each provided with a screw, *b*<sup>1</sup>, which holds them in place upon the yoke, as shown. Each of these rings carries a semicircular clasp or clamp, *b*<sup>2</sup>, which are formed and arranged to fit into the circumferential channel *b* in the ring B, as shown. The said clamps fill the said channel, so that the walls of the channel entirely cover the sides of the clamps, while the edge of the clamps is even with the edge of the ring, as shown. The clamps are arranged to lap each other at their extremities, as shown, and are there fastened together by a screw, *b*<sup>3</sup>, as shown. The ring B is preferably flattened on its rim at *b*<sup>4</sup>, where it is contact with the rings C C', in order that it may be more neatly and closely adjusted to the rings and the yoke.

I am aware that rings or strips and pack-

ings of leather have been heretofore employed in neck-yokes for poles, the said rings or strips being held by a clip inclosing the neck-yoke and made in two pieces, divided in a line parallel to the plane of the tongue-ring, these pieces being fastened together by screws passing laterally through them; and that said rings or strips of leather have been held by being clamped in U-shaped bars attached to the yoke, the said bars being drawn upon the leather by suitable clips.

It is not my intention to claim herein either the leather rings or strips, nor the devices enumerated for clamping the leather rings in position, for the leather rings are made of strips, or of layers of washers imposed one upon another, their edges sustaining the wear against the pole, and thus rendering liable an unequal wear upon the various washers, while whenever it is desired to renew the leather, new rings must be cut and shaped to be adjusted within the clamps; whereas, by means of my improved solid cast-rubber ring B, having its deep interior circumferential groove *b*, the yoke may be more firmly fixed on the pole by the adhesion of the inner face of the ring, and thus the slipping occurring when leather is used, and rendered more liable by the great hardness and smoothness given to the surface of the leather by constant friction, entirely obviated, while the liability to wear of the ring is consequently decreased, and the ring may be readily renewed by the substitution, without the resort to tools to prepare it, of another and similar solid cast-rubber ring.

By means of my improved device for securing the ring B upon the yoke, consisting of the rings C C' on the yoke, carrying the semicircular clasps or clamps *b*<sup>2</sup>, which are wholly sunk or embedded in the groove or channel *b* on the ring B, and are united at *b*<sup>3</sup>, I constitute a device, wherein the clamps holding the chafing-ring are removed from all liability of contact with, and consequent scratching or injury to, the pole, either in passing the ring onto the pole, or when the chafing-ring has worn down to the edges of the clamps, as is liable to occur when the clamps holding the ring are arranged upon the exterior of the ring, and inclose the ring between their surfaces.

By means of my device, as shown, I gain all the advantages of a metal ring entirely covered by leather stitched upon it, as is sometimes employed, while I avoid all the disadvantages and annoyance attendant upon the renewal of such a species of chafing-ring, it being necessary to employ the skilled labor of a saddler in removing and replacing the leather, while in my device the ring may be easily and quickly disengaged from the solid-rubber ring B, and a new ring substituted.

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

1. As a chafing-ring for neck-yokes for vehicle-poles the solid cast-rubber ring B, hav-

ing the deep exterior circumferential groove *b*, arranged to operate as described.

2. In a neck-yoke for vehicle-poles the combination, with the solid cast india-rubber ring B, having the exterior deep circumferential groove *b*, of the rings C C', fastened to the yoke at *b*<sup>1</sup>, each carrying a semicircular clamp, *b*<sup>2</sup>, sunk or embedded in the said groove *b*, and fastened together at *b*<sup>3</sup>, as described, and for the purpose specified.

CLARENCE F. WHIPPLE.

Witnesses:

J. W. COCHRAN,  
CHAS. M. WEBB.