UNITED STATES PATENT OFFICE.

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NECK-YOKE.

SPECIFICATION forming part of Letters Patent No. 344,289, dated June 22, 1886.

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To all whom it may concern:

Be it known that I, CHARLES SHUMAN, a citizen of the United States, residing in the city of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Neck-Yoke, of which the following is a specification.

This invention relates to neck-yokes employed in harnessing teams to vehicles. Its object is to produce a swiveled center for neck-yokes of a reliable construction and at a small cost.

It consists, essentially, in a swivel-connection of the pole-ring with its support and in a hinged connection of the pole-ring support with the yoke-bar, all of which will be hereinafter more fully described.

In the accompanying drawings, Figure 1 is an isometrical front representation of my improved neck-yoke. Fig. 2 is a transverse central section, and Fig. 3 is a lengthwise central section on dotted line 1 on Fig. 2.

My improved neck-yoke center consists, essentially, of a clasp-plate, A, a pole-ring, B, and an intermediate portion, C, connecting the pole-ring and the clasp-plate by means of a rivet, D. The inner face of the clasp-plate A is produced in curved form to embrace the wood bar E of the yoke, and is provided with holes to receive bolts or rivets to fix it in place thereon. The clasp-plate is provided with a lengthwise central opening, at the ends of which are formed box-bearings *a*, projecting from its convex side and open on its concave or inner face. The intermediate portion, C, employed to connect the pole-ring and clasp-plate, consists of a pendant, *b*, of dimensions to pass freely outward through the central opening in the plate, and end journals, *c*, to enter the end openings, *a*, therein. The pendant *b* is perforated centrally to receive a rivet, D, and its under face countersunk in conic form.

The pole-ring B, to receive the free end of the pole, is formed on its upper side in conic form to enter the conic seat in the pendant, and is perforated to correspond with the perforation in the pendant, and is provided with a rectangular countersink on its inner face to receive the head of the rivet employed to connect the ring and pendant. The rivet D is produced with a head of rectangular form to enter the countersink in the inner face of the ring.

In placing the parts together the pendant of the intermediate portion is passed outward through the central opening in the clasp-plate and its end journals are placed in the open end bearings in the plate. The pole-ring is then put in place and the rivet inserted. A washer, *d*, is then put on the upward projecting end of the rivet, which is then riveted to fix the parts in place in a free manner, forming a swivel-connection of the pole-ring with the pendant, and a hinge-connection of the intermediate portion with the clasp-plate. A metallic plate, *e*, is placed over the intermediate portion in the central opening in the clasp-plate, on the concave side thereof, to prevent cutting the wood when in place thereon. The concave surface of the clasp-plate is then placed to embrace the central portion of the wood bar E, which is of the usual form, and rivets or screw-bolts *h* passed through the parts serve to fix the yoke-center in place. By this construction and application of the parts I produce a reliable neck-yoke at a small cost, capable of an oscillatory movement in its connection with the pole, an oscillatory movement of the yoke in the plane of the pole, and a rolling or rocking movement of the yoke-bar in its connection with the intermediate portion of the center.

Instead of the rivet D, employed to connect the pole-ring to the intermediate portion, it may be produced with a stud rising from the ring to enter the perforation in the intermediate portion.

I claim as my invention—

1. The combination of a pole-ring to receive the vehicle-pole, a clasp-plate to connect with the yoke-bar, provided with a lengthwise opening and box-bearings, an intermediate plate hinged to the box-bearings, and a swivel-connection between the pole-ring and the intermediate plate, substantially as described.

2. The combination of a yoke-bar, a clasp-plate to emb ace the bar, and formed with a lengthwise opening and box-bearings, an in-

termediate plate hinged to the box-bearings, the yoke-ring swiveled to the intermediate plate, and a plate interposed between the intermediate plate and the yoke-bar, substantially as described.

3. The combination, with the pole-ring having the convex portion, the intermediate plate having the concave seat, the rivet connecting the intermediate plate and the pole-ring, and the yoke-plate having the lengthwise opening and the box-bearings to receive the ends of the intermediate plate, substantially as described.

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Witnesses:
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