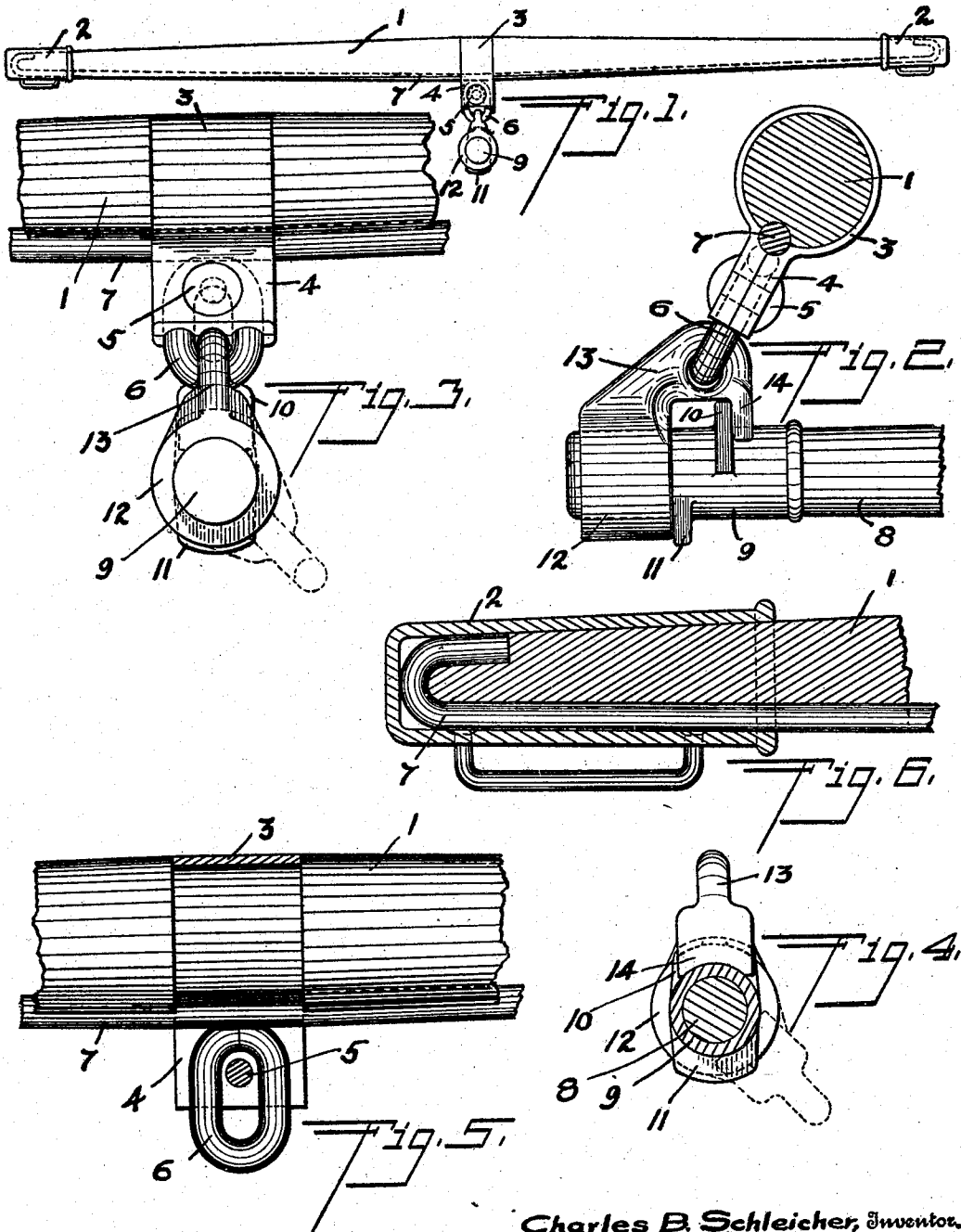


C. B. SCHLEICHER.
NECK YOKE.
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Charles B. Schleicher, Inventor.

Witnesses:

Roy G. Katz
C. R. McKay

David O. Barrell.

Attorney.

UNITED STATES PATENT OFFICE.

CHARLES B. SCHLEICHER, OF BRADY, NEBRASKA.

NECK-YOKE.

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To all whom it may concern:

Be it known that I, CHARLES B. SCHLEICHER, a citizen of the United States, and a resident of Brady, in the county of Lincoln and State of Nebraska, have invented certain new and useful Improvements in Neck-Yokes, of which the following is a specification.

My invention relates to neck-yokes and tongues for carriages and wagons, and it is the object thereof to provide a simple, durable and convenient neck-yoke center, or means for connecting the neck-yoke and tongue of the vehicle, by which the yoke and tongue when in use may be prevented from becoming accidentally disengaged.

A further object of my invention is to provide a means for reinforcing or strengthening the neck-yoke against transverse stresses.

Constructions embodying my invention are illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of the yoke in connected position on the tongue, Fig. 2 is a detail side elevation of the yoke and tongue connecting devices, Fig. 3 is a front elevation of the same, Fig. 4 is a rear elevation of the connector body and tongue thimble, Fig. 5 is a sectional view of the yoke center-strap, and Fig. 6 is a detail longitudinal section of the end of the yoke.

In carrying out my invention I provide a wooden yoke 1 of ordinary form and dimensions, which is provided at the ends with metal ferrules or thimbles 2. At the center of the yoke a circumferential groove is made therein in which is placed a metal band 3 of which the end portions 4 are turned outwardly and secured together by a rivet 5. The adjoining faces of the said end-portions 4 have U-shaped semicircular grooves therein adapted to receive a part of the oval link 6 which is placed therein, as shown, before the ends of the band are riveted together. On the inner side of the band 3, adjoining the inner ends of the portions 4, there is a groove or recess adapted to fit over the rod 7, as shown in Fig. 2. The said rod 7 extends longitudinally of the yoke, being embedded in a groove made in one side thereof, and the ends of the rod are hooked over the ends of the yoke inside the thimbles 2, as shown in Fig. 6 and by

dotted lines in Fig. 1. By the engagement 55 of the band 3 with said rod 7 the band is prevented from turning upon the yoke.

On the end of the tongue 8 is secured the ferrule or thimble 9 which is provided with radially extending lips or flanges 10 and 11 disposed on the upper and lower sides thereof as shown in Fig. 2, the side faces of the flanges preferably being substantially parallel with each other and tangent to the surface of the thimble, and the lower flange 65 being in front of the upper flange by an amount approximately twice the thickness thereof.

The connector body comprises a ring portion 12 adapted to fit over the front part 70 of the thimble 9, and an upwardly and rearwardly extending rib portion 13 in which is formed an eye for engagement with the oval link 6, and from the rearward part of which a lip 14 extends inwardly and fits around the thimble as shown in Figs. 2 and 75 4. When the connector body is in normal or engaged position on the thimble 9, the rear face of the ring portion 12 engages the front face of the flange 11, and the front face of the lip 14 engages the rear face of the flange 10, the position being as shown in Fig. 2. In order to disengage the connector body from the thimble, the body is rotated 85 on the thimble until the lip 14 is disengaged from the flange 10, as indicated by the dotted lines in Fig. 4. The body is then pulled toward the front end of the thimble until the lip 14 engages the flange 11, when it is again rotated to disengage the lip from the 90 latter flange, after which the body may be moved directly off the end of the thimble. In making the connection, the body is held in upright position, the ring 12 is passed over the end of the thimble until the lip 14 95 engages the front face of the flange 10, the body is then rotated until said lip can pass the flange, then pushed on back until the ring 12 engages the flange 11, after which the body is again rotated to bring the lip 100 14 up behind and in engagement with the flange 10.

It will be obvious that while the connector body may be very quickly and easily taken from and replaced upon the thimble, the 105 movements thereof necessary to such removal are not such as may be accidentally made when in use, and hence there is no

possibility of the yoke and tongue being accidentally disengaged.

By the flexible connection formed between the link 6 and the eye in the rib portion 13 of the connector body, the yoke is permitted to swing freely with reference to the tongue, as far as is necessary or desirable when in use.

In assembling the parts, the oval link 6, which is made open at one end, is heated and passed through the eye in the connector body; the link is then bent to bring the ends thereof together, and the open end is then laid into the grooves in the end portions 4 of the center-band 3, as shown in Fig. 5, after which the said end portions 4 are closed upon the link and secured together by the rivet 5.

The rod 7, besides serving to prevent the center-band 3 from turning on the yoke, acts as a truss to the yoke and very materially strengthens the same so that it is less liable to break when subjected to an unusual stress.

Now, having described my invention, what I claim and desire to secure by Letters Patent is:

1. The combination with a neck-yoke and tongue, of a connector body flexibly connected with the yoke, a thimble secured on the tongue, flanges arranged on opposite sides of the thimble and in spaced longitudinal relation to each other, the connector body having a portion adapted to encircle the thimble and engage the front face of one of the flanges, a portion extending over the other flange, and a lip engaging the rearward face of the other flange.

2. The combination with a neck-yoke and a body adapted for releasable connection with a tongue-thimble, said body having an eye formed therein; of an oval link divided at one end and passed through said eye to form a flexible connection therewith, a band encircling the yoke at the center thereof, the end portions of the band being turned outwardly and having U-shaped grooves therein adapting the same to fit over and inclose the divided end of the oval link, and a sin-

gle rivet connecting said end portions of the band to clamp the same upon the link.

3. The combination with a neck-yoke and tongue, of a link held in fixed relation to the yoke, a body having an eye connecting with said link, a thimble carried by the tongue, flanges arranged on opposite sides of said thimble and in spaced longitudinal relation to each other, the body connected with the link having a portion adapted to encircle the thimble and engage one of the flanges thereon, and a portion adapted for engagement with the opposite face of the other flange, the arrangement being such that by alternate rotation and longitudinal movement of the body upon the thimble the said parts may be connected and disconnected.

4. The combination with a neck-yoke and a body adapted for releasable connection with a tongue-thimble, of a band flexibly connected with said body, the said band encircling the central part of the yoke and having a transverse groove in the inner face thereof, and a rod extending longitudinally of the yoke and partly embedded in a groove therein, the said rod extending into the groove in the band for the purpose described.

5. The combination with a neck-yoke and end-thimbles thereon, of a band encircling the central part of the yoke, and a rod extending longitudinally of the yoke, the said rod being partly embedded in a groove in one side of the yoke and passing under the central band thereon, the said rod and band having interengaging portions whereby the rod is held into the groove and the band is prevented from turning relatively to the rod, and the ends of the rod being hooked around the ends of the yoke under the thimbles thereon.

In testimony whereof I have hereunto subscribed my name in the presence of two witnesses.

CHARLES B. SCHLEICHER.

Witnesses:

D. O. BARNELL,
ROY G. KRATZ.