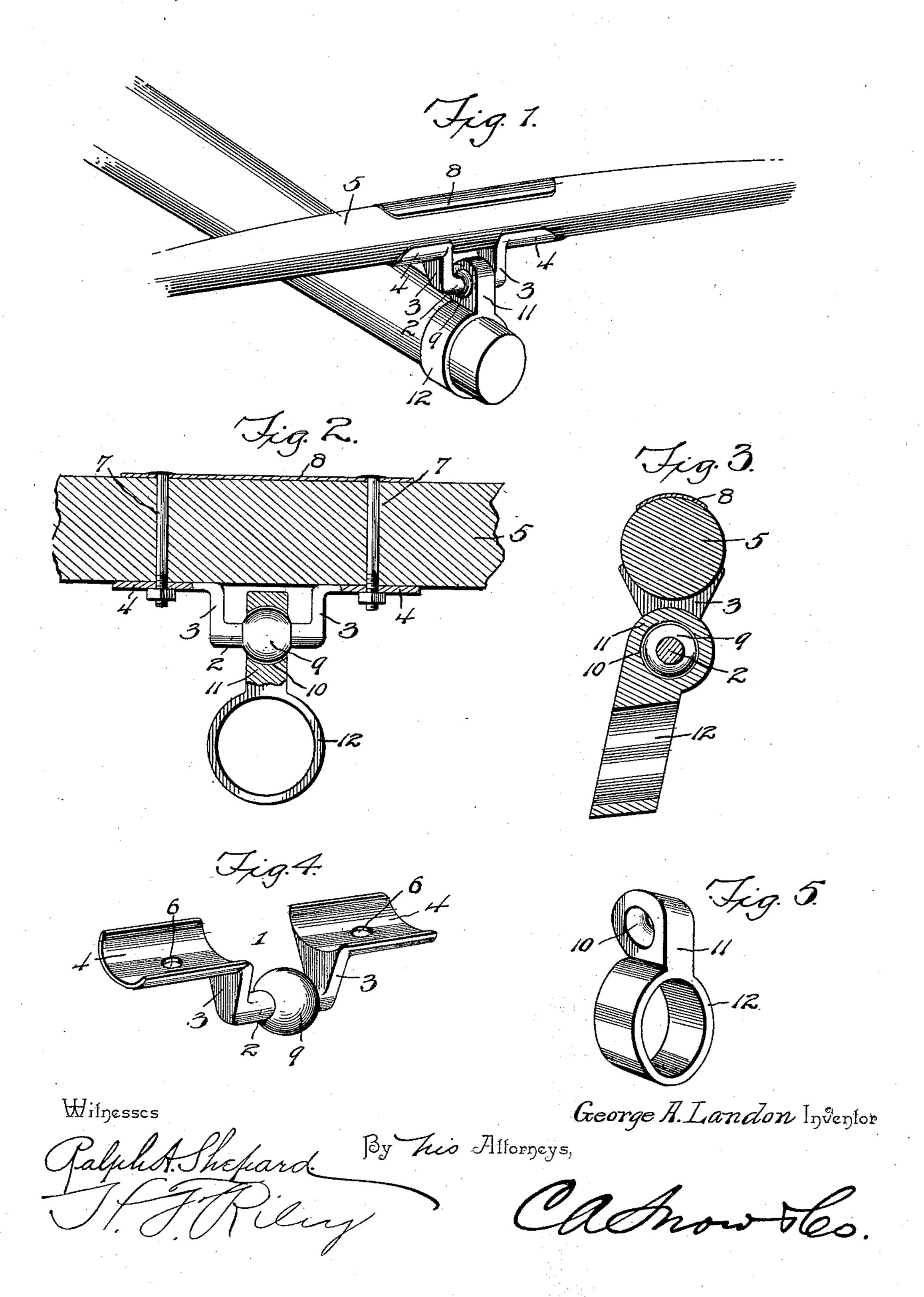
## G. A. LANDON. NECK YOKE.

(Application filed Oct. 18, 1899.)

(No Model.)



## United States Patent Office.

GEORGE ARTHUR LANDON, OF TORONTO, CANADA, ASSIGNOR OF FOUR-FIFTHS TO JOSEPH F. EBY, HUGH BLAIN, WILLIAM J. McMURTRY, AND FRANCIS N. TENNANT, OF SAME PLACE.

## NECK-YOKE.

SPECIFICATION forming part of Letters Patent No. 652,276, dated June 26, 1900.

Application filed October 18, 1899. Serial No. 734,013. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ARTHUR LANDON, a subject of the Queen of Great Britain, residing at Toronto, in the Province of Ontario and Dominion of Canada, have invented a new and useful Neck-Yoke, of which the following is a specification.

The invention relates to improvements in

neck-yokes.

one object of the present invention is to improve the construction of neck-yokes and provide a simple and comparatively-inexpensive one adapted to accommodate itself to the movement of a pair of horses and capable of firmly gripping a tongue, so that there will be no liability of its accidentally leaving the same should the traces become disconnected from the whiffletrees.

A further object of the invention is to provide a neck-yoke center adapted to permit a backward-and-forward rolling motion and capable of allowing a limited horizontal oscillation, so that the ends of the neck-yoke may swing backward and forward as the relative positions of the horses from time to time may necessitate.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed

out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a neck-yoke constructed in accordance with this invention and shown applied to a pole. Fig. 2 is a sectional view taken longitudinally of the neck-yoke. Fig. 3 is a similar view taken transversely of the neck-yoke. Fig. 4 is a detail perspective view of the loop which carries the roller. Fig. 5 is a similar view of the sleeve which carries the socket.

Like numerals of reference designate corresponding parts in all the figures of the draw-

ings.

loop forming one of the members of a neckyoke center and composed of a transverse portion 2 and sides 3, arranged parallel with and extending upward from the ends of the

transverse portion and provided with inte- 50 gral outwardly-extending plates or flanges 4, presenting concave upper faces to conform to the configuration of a neck-yoke 5 and having perforations 6, through which pass bolts 7 or other suitable fastening devices for se- 55 curing the loop to the neck-yoke. The neckyoke is preferably provided at its top with a wear or reinforcing plate 8, which receives the heads of the bolts. The transverse portion 2 of the loop, which is round adjacent to 60 the sides 3, is provided with a central spherical enlargement 9 and is adapted to form a roller and fit in a socket 10 to provide a rollerbearing. The transverse roller is solid and consists of a single piece of metal, preferably 65 a malleable casting, and the socket 10, which is continuous, consists of an opening of a lug or ear 11 of a sleeve 12, the walls of such opening being concaved to fit the transverse roller. The lug or ear 11, which is narrow, is pro- 70 vided with flat side faces, and it extends rearward from the front edge of the sleeve. The concaved wall extends over the central enlargement of the transverse roller, as clearly illustrated in Fig. 2 of the accompanying 75 drawings, and as both the socket and the roller are continuous it will be apparent that it is impossible for them to become separated.

The neck-yoke center is cast with the parts arranged as illustrated in Fig. 2 of the draw- 80 ings and they are shown separated in Figs. 4 and 5 in order to illustrate the construction more clearly. The roller-bearing permits a backward-and-forward rotation of the neck-yoke and allows a limited horizontal oscilla- 85 tion, and the neck-yoke is thus enabled to accommodate itself to any movement of a pair of horses and to adjust itself to the relative positions of the animals from time to time.

The center of the socket of the ear or lug 11 is located in rear of the center of the sleeve, and the latter is thereby caused to dip toward the front and firmly engage the tongue. The tongue is securely gripped between the front 95 edge of the upper portion of the sleeve and the rear edge of the lower portion of the sleeve, and there is no liability of the neck-yoke cen-

ter accidentally leaving the tongue should the traces break or become otherwise disconnected from the whiffletrees.

It will be seen that the neck-yoke center is 5 simple and comparatively inexpensive in construction, that it possesses great strength and durability, as the socket and the loop are constructed of single pieces of metal and not of sections, and that the roller-bearing permits 10 a forward-and-backward rotation of the neckyoke and a limited horizontal oscillation of the same, so that the neck-yoke is enabled to accommodate itself to the movements of a pair of horses. It will also be apparent that 15 as the sleeve has an eccentric connection with the loop it is caused to dip and securely grip the pole, so that there is no liability of the neck-yoke center becoming accidentally disengaged from the tongue should the traces 20 break or become otherwise uncoupled from the whiffletrees.

What is claimed is—

1. A device of the class described comprising a loop consisting of a transverse roller provided with an enlarged central portion and sides extending from the ends of the transverse portion and designed to be secured to a neck-yoke, and a sleeve detachably fitting on the end of a pole or tongue and pro-

vided at its top with a narrow lug having a 30 transverse opening receiving the roller and provided with continuous annular concave walls conforming to the configuration of the said roller, substantially as described.

2. A device of the class described compris- 35 ing a loop consisting of a transverse roller provided with an enlarged central portion and sides extending from the ends of the transverse portion and designed to be secured to a neck-yoke, and a sleeve detachably fit- 40 ting on the end of a tongue or pole and provided at its top with a rearwardly-disposed narrow lug, having a transverse opening to receive the roller, and provided with continuous annular concave walls conforming to the 45 configuration of the said roller, said opening being located in rear of the center of the sleeve, whereby the latter is caused to dip to the front and clamp the tongue or pole, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

the presence of two witnesses.

## GEORGE ARTHUR LANDON.

Witnesses:

J. A. MILLS,

J. H. TENNANT.