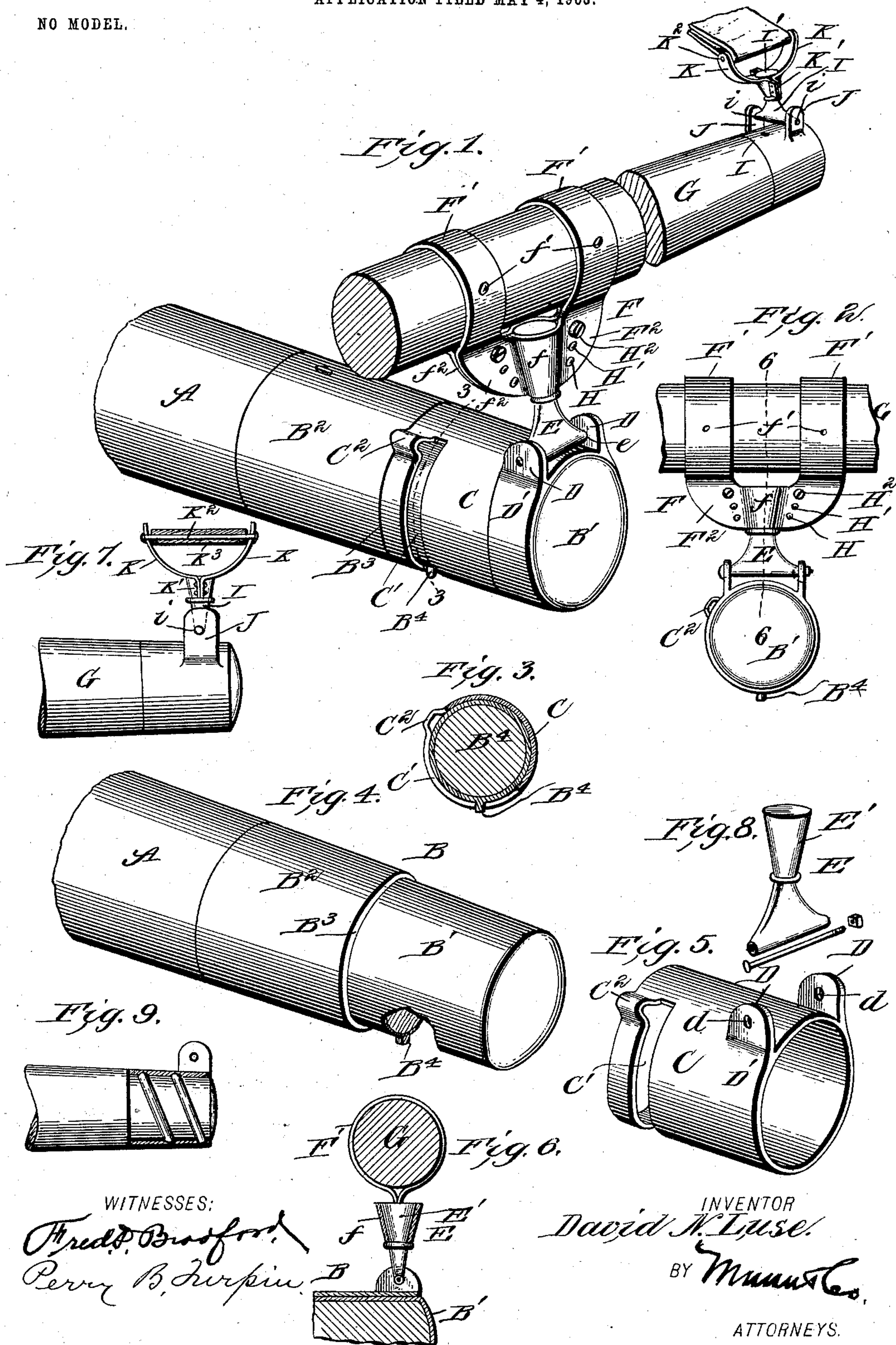


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PATENTED DEC. 29, 1903.

D. N. LUSE.
NECK YOKE ATTACHMENT.
APPLICATION FILED MAY 4, 1903.

NO MODEL.



UNITED STATES PATENT OFFICE.

DAVID N. LUSE, OF CARROLL, IOWA.

NECK-YOKE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 748,388, dated December 29, 1903.

Application filed May 4, 1903. Serial No. 155,523. (No model.)

To all whom it may concern:

Be it known that I, DAVID N. LUSE, a citizen of the United States, residing at Carroll, in the county of Carroll and State of Iowa, have made certain new and useful Improvements in Neck-Yoke Attachments, of which the following is a specification.

My invention is an improvement in neck-yoke attachments; and it consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a neck-yoke attachment embodying my invention, parts being broken away and others shown in section. Fig. 2 is a front elevation of the pole and a portion of the neck-yoke. Fig. 3 is a cross-section on about line 3 3 of Fig. 1. Fig. 4 is a detail perspective view, partly in section, of the pole-thimble and a portion of the pole. Fig. 5 is a detail perspective view of the coupling-sleeve. Fig. 6 is a detail section on about line 6 6 of Fig. 2. Fig. 7 is a detail view showing the connection for the collar-strap, and Fig. 8 is a detail view of the swinging bar, and Fig. 9 shows a somewhat different form of sleeve connection.

The pole A is provided at its front end or tip with a thimble B, which may be of malleable iron or other suitable material and is formed with the front section B' and the rear section B², larger than the section B', providing the forwardly-facing shoulder B³ at the front end of the section B², as will be understood from Figs. 1 and 4 of the drawings. The section B' is provided on its under side with the projecting stud B⁴, which may preferably be cast integral with the thimble, as shown.

The coupling-sleeve C is formed to fit on the section B' of the pole-thimble, and this sleeve C is provided near its rear end with the circumferentially-extending slot C' and with the outwardly-bulged portion C² at one end of said slot to permit the entrance thereto of the stud B⁴ in fitting the coupling-sleeve onto the section B' of the thimble B.

In assembling the parts the coupling-sleeve may be fitted on the thimble B, with its outwardly-bulged portion C² in register with the stud B⁴, when the coupling-sleeve may be par-

tially rotated to bring it to the position shown in Figs. 1 and 2, the stud B⁴ operating in the slot C' and serving to hold the sleeve securely on the thimble.

While I may prefer the described construction for connecting the coupling-sleeve with the thimble B, it will be understood that where desired I may employ the construction shown in Fig. 9, in which the thimble and sleeve are provided with heavy threads, and the sleeve can be screwed onto the thimble by one or more turns in connecting it with the thimble.

The coupling-sleeve C is provided with the projecting ears D at its upper side and spaced apart and provided with the openings d for the pivot-bolts of the swinging bar E. These lugs D may be cast integral with the sleeve C, as shown in Fig. 5, or they may be the projecting ends of a bracing-strap D', fitting around and secured to the sleeve C at the front end thereof, as shown in Fig. 1.

The swinging bar E extends at its lower end between the lugs D and is pivoted by means of the pivot-bolt passing through the lower end of the said bar and through the lugs D, such pivot-bolt being shown in Fig. 8 and being threaded in one of the lugs D and suitably secured at its other end, it may be, by a tap, as shown in said Fig. 8, or by riveting or otherwise, as may be desired. By this construction the bar E may swing back and forth, as will be understood from Fig. 1. This bar E has at its upper end the downwardly-tapering shaft portion E', upon which is journaled the intermediate bar of the yoke-clasp, as shown in Figs. 1 and 2. This yoke-clasp F is provided with the rings F', encircling the yoke G, and with the intermediate bar F², composed of the separate strips f², having at their middles the outwardly-swelled portions f to encircle and journal upon the tapered shaft E' of the swinging bar E when the parts are secured as shown in Figs. 1 and 2. The yoke G may be secured in the rings F' by brads or screws f', and the plate-sections f² are connected on opposite sides of the swelled portion f by means of the rivets H, H', and H². In practice the rivets H and H' may be secured previous to inserting the yoke, the rivet H² being inserted and riveted after the yoke is in-

serted within the rings F'. The upper rivet H² may be in the form of a machine screw or bolt, so it can be operated to draw up the plates f² after the yoke is in place and then riveted. By the described construction it will be noticed the yoke can swing freely to the front and rear and can turn at its center upon the swinging bar, giving the desired freedom of movement to the yoke and properly supporting the front end of the pole, as desired. It will also be noticed that the yoke is so connected with the pole that I avoid any projection of the pole beyond the neck-yoke connection, obviating difficulties resulting from the catching of the checkreins over the ends of the pole and the interference by the projecting end of the pole striking animals, end-gates, &c. The construction is also neat and attractive in appearance and can be employed upon carriages or wagons or any other implement-tongue, as may be desired.

In Fig. 7 I show the connection for the collar or breast strap. This construction includes a swinging bar I like the bar E and having its trunnions i journaled in lugs J, suitably secured on the neck-yoke at or near its ends. Loops K are journaled at K' on the tapered shafts I' of the bars I and are provided at their other ends with cross-bars K², which may be supplied with sleeves K³, turning loosely on the bars K² and receiving the collar-straps, as will be understood from Figs. 1 and 7.

The construction and arrangement of the lugs J practically at the ends of the yoke avoid any projecting yoke ends likely to catch reins, hitching-posts, &c., and by swiveling the strap connections they are adapted to receive either a breast or collar strap, as they can readily turn from one position to the other in order to properly receive such parts.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The improvement in neck-yoke attachments herein described comprising the pole-thimble having the projecting stud, the coupling-sleeve provided with a circumferentially-extending slot to receive said stud and with the outwardly-bulged portion leading from

the end of the sleeve to said slot for the insertion of the stud, the lugs or ears on the sleeve and provided with bearings, the swinging bar pivoted at its lower end between the lugs, and having the downwardly-tapered shaft portion, the yoke-clasp having the rings encircling the yoke and intermediate bars consisting of the opposite plates secured together and provided with the outwardly-swelled portions journaling on the shaft of the swinging bar, the yoke held by the clasp, the lugs on the yoke near its ends, the swinging bars pivoted at one end between the lugs and the strap connections journaled on said bars and adapted for the connection of the collar-straps.

2. The combination of the pole-thimble having a projecting stud, the coupling-sleeve fitting on the thimble and having a circumferential slot for the thimble-stud and an outwardly-bulged portion forming a passage for the stud to the slot, the neck-yoke and connections between the neck-yoke and the connecting-sleeve substantially as set forth.

3. The combination of the sleeve having the projecting lugs, the swinging bar pivoted at one end between said lugs and having a shaft portion and the yoke-clasp having the transverse bar consisting of the plates secured together and extending along the opposite sides of and journaling upon the shaft portion of the swinging bar substantially as set forth.

4. The combination of the yoke, the lugs on the yoke at or near its ends, the swinging bars pivoted at one end and arranged in a line transverse the said yoke between the lugs, and the strap connections journaled on said bars and adapted for the connection of the collar-straps substantially as set forth.

5. The combination of the yoke, the swinging bars jointed at one end in connection with the yoke and in a line transverse thereof and the strap connections swiveled on said bars and adapted for the connection of the collar-straps substantially as set forth.

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Witnesses:

W. C. SAUL,
A. J. HODGES.