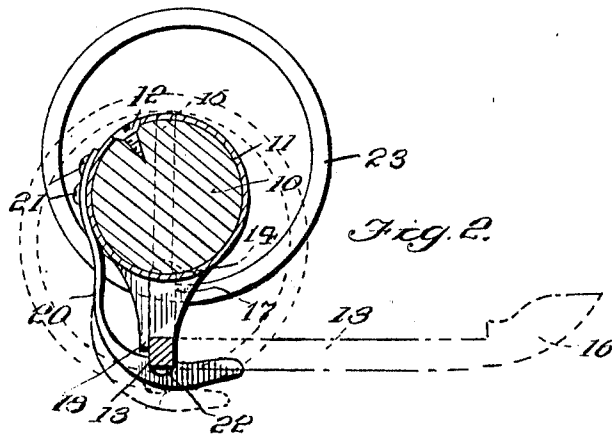
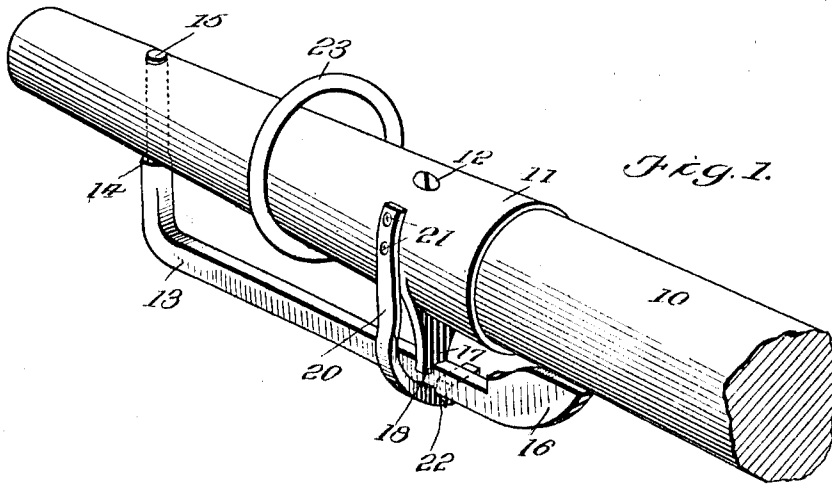


W. A. BUCHANAN.
NECK YOKE COUPLING.
APPLICATION FILED OCT. 5, 1910.

1,001,614.

Patented Aug. 29, 1911.



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UNITED STATES PATENT OFFICE.

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NECK-YOKE COUPLING.

1,001,614.

Specification of Letters Patent. **Patented Aug. 29, 1911.**

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To all whom it may concern:

Be it known that I, WILLIAM A. BUCHANAN, citizen of the United States, residing at Asheville, in the county of Buncombe and State of North Carolina, have invented certain new and useful Improvements in Neck-Yoke Couplings, of which the following is a specification.

This invention relates to harness and has particular reference to an improved coupling adaptable to neck yokes of double harness.

An object of this invention is to provide an improved coupling by means of which the connecting ring may be removed from the end of the cross bar or neck yoke, and which when locked in position cannot be accidentally displaced.

The invention has for another object to provide a coupling of this character which is of substantial form and which is made up of but few operating parts so as to provide a device which may be economically manufactured.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is a perspective view of one end of the neck yoke disclosing the improved coupling, and Fig. 2 is a transverse section through the end of the neck yoke showing the improved coupling in an open position.

Corresponding and like parts are referred to in the following description and indicated in all of the views of the accompanying drawing by the same reference characters.

Referring to the drawing, the numeral 10 designates the neck yoke which is provided upon one end with a ferrule 11. The ferrule 11 is secured upon the neck yoke 10 in any suitable manner, preferably by screws 12 which are countersunk in the outer face of the ferrule 11 and extend into the neck yoke 10. The outer end of the ferrule 11 is provided with a depending and hinged arm 13, the rounded shank or inner end 14 thereof passing snugly and diametrically through the ferrule 11 and being enlarged as at 15, upon its extremity to prevent the displacement of the same. The rounded form of the inner end of the arm 13 admits of the turning of the arm beneath the ferrule 11 as desired. A lip 16 is formed upon the outer extremity of the arm 13 and is en-

larged for the reception of the thumb of the operator thereagainst. A lug 17 depends from the inner end of the ferrule 11 immediately above the arm 13 and is provided with a projection 18 at one edge to form a shoulder for the reception of the arm 13. The projection 18 forms a stop to limit the swinging movement of the arm 13 when closing the coupling.

A leaf spring 20 is attached to the forward side of the ferrule 11 by rivets 21, or the like, and extends downwardly at substantially a tangent to the surface of the ferrule 11 where it is curved inwardly beneath the lug 17. The lower end of the leaf spring 20 rests against the lower edge of the arm 13, the spring 20 being provided with a transverse depression 22 for the reception of the arm 13. The depression 22 forms a shoulder for the retention of the arm 13 against the stop or projection 18 when the coupling is closed.

The ferrule 11 receives a connecting ring 23, of any approved form, by means of which the hames or collars of the harness are attached to the neck yoke 10.

In the operation of the improved coupling, when it is desired to release the ring 23 from the ferrule 11, the operator presses the thumb against the lip 16 and the finger against the outer curved extremity of the leaf spring 20. When the leaf spring 20 is moved down to free the arm 13 from the depression 22, the arm 13 is then swung outwardly from the stop 18 into the position disclosed in Fig. 2.

It will of course be understood that this improved coupling may be used in connection with other parts of the harness or applied to various devices without departing from the spirit of the invention.

Having thus described my invention, what is claimed as new is:

1. A neck yoke coupling including a ferrule for engagement over the end of a neck yoke and having a depending lug upon its inner end provided at one edge with a projection to form a shoulder at the lower end of the lug, a leaf spring carried against the side of the ferrule and having a curved lower end passing in registration beneath the lug, and a hinged arm carried upon the outer end of the ferrule for engagement between the shoulder and said spring.

2. A neck yoke coupling including a ferrule for engagement over the extremity of a

neck yoke, a depending arm mounted for horizontal swinging movement beneath the ferrule, a lug depending from the inner end of the ferrule and having a shoulder formed
3 in its lower edge for the reception of said arm, and a leaf spring carried by the ferrule and having a lower curved end for engagement against the arm, said spring having a

depression in its inner face for the reception of the arm. 10

In testimony whereof, I affix my signature in presence of two witnesses.

WILLIAM A. BUCHANAN. [L.S.]

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
