

(No Model.)

T. G. MANDT.
NECK YOKE CENTER.

No. 543,627.

Patented July 30, 1895.

Fig. 1.

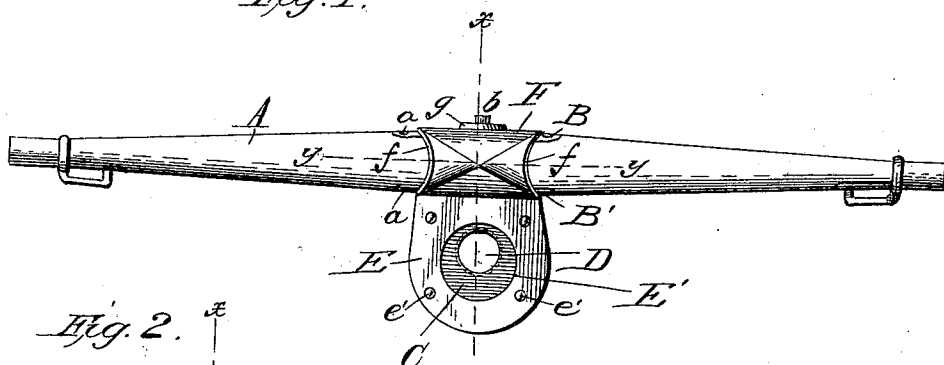


Fig. 2.

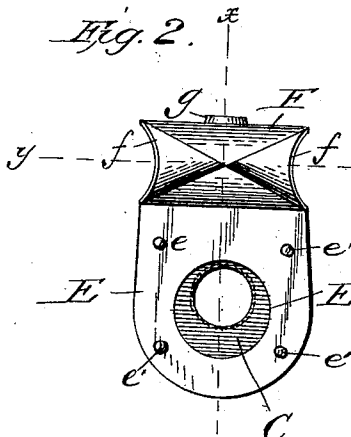


Fig. 3.

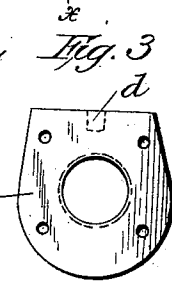


Fig. 4.

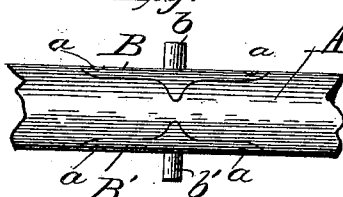


Fig. 5.

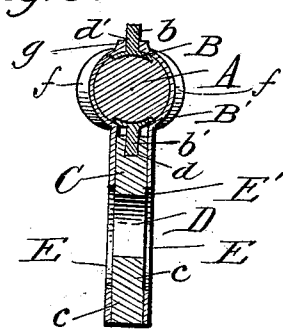
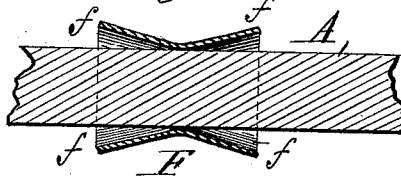


Fig. 6.



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UNITED STATES PATENT OFFICE.

TARGE G. MANDT, OF STOUGHTON, WISCONSIN, ASSIGNOR TO SAMUEL F. PEARL, OF OVID, MICHIGAN.

NECK-YOKE CENTER.

SPECIFICATION forming part of Letters Patent No. 543,627, dated July 30, 1895.

Application filed December 14, 1894, Serial No. 531,775. (No model.)

To all whom it may concern:

Be it known that I, TARGE G. MANDT, a citizen of the United States, and a resident of Stoughton, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Neck-Yoke Centers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is an elevation or front view of a neck-yoke equipped with my improved center or tongue-bearing. Fig. 2 is a front or face view of my improved center or tongue-bearing removed from the neck-yoke bar. Fig. 3 is a detail view of the center with the exterior covering-plates removed. Fig. 4 is a detail view of the middle part of the yoke-bar, showing the central pivots on which the adjustable center or tongue-bearing swings. Fig. 5 is a transverse sectional view on line *x* *x* in Figs. 1 and 2, and Fig. 6 is a longitudinal sectional view through the center and yoke-bar on the horizontal plane indicated by the broken line marked *y y* in Fig. 2.

Like letters of reference designate corresponding parts in all the figures.

This invention relates to the center-plates or tongue-clasps (commonly called "centers") of neck-yokes; and it consists in an improved construction of the same whereby the center or tongue-clasp is enabled to adjust itself automatically relative to the motions of the yoke-bar and the tongue in such a manner as not only to greatly relieve and reduce the strain both on the bar and tongue, but also, by virtue of its capability of automatic adjustment, greatly increase the durability and wearing qualities of the center itself, substantially as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings, the reference-letter A denotes the neck-yoke bar, upon the middle of which I fasten two metal plates B and B', one on the upper and the other on the under side of the bar, in alignment with each other and fastened to

the bar, preferably, by screws *a a*, one at each end. Each of these plates is cast with a central stud *b b'*, which are also in vertical alignment with each other and form, so to speak, center trunnions or pivots for bar A.

The center C is composed, as usual, of a number of layers *c c*, of leather, rawhide, or other suitable material, cut to the proper size and shape and superimposed one upon the other until the requisite thickness has been attained. A hole D is punched through the middle of this leather center and another smaller hole *d* is bored into it on the flat upper side equidistant from both sides and extending down toward the central aperture D. A suitable number of small perforations *e* (in the present instance four) are also punched transversely through the center C for the attachment of the same to the exterior metal casing or casing-plate E by means of rivets *e'*, said casing-plate E having a central aperture E' registering with aperture D in the leather center C, but of larger dimensions and placed eccentrically to said aperture D, so that a considerable thickness of leathers *c c* will intervene between the under side of the inner tongue-aperture D and the exterior aperture E' in the casing-plate, as will clearly appear on reference to Figs. 1 and 2. This metallic casing-plate E is bent or doubled upon itself on opposite sides of the leather center C and forms at the upper end of the latter an elongated loop or sleeve F around the middle part of the yoke-bar A. This sleeve F, however, is not cylindrical, but is made of gradually-increasing size laterally toward both ends, as will appear more clearly on reference to Fig. 6, said sleeve F being smallest at its middle, in alignment with the center of the aperture D and pivots *b b'*, and then flaring laterally and gradually toward both ends, as shown at *f f*, thus leaving spaces of gradually-increasing width between the center and the opposite ends of sleeve F.

In the middle of sleeve F on its upper side is an aperture *d'*, which coincides with the aperture *d* in the leather center C and is reinforced by a raised rim or boss *g*.

When the center is placed in position upon the neck-yoke bar, the downwardly-project-

ing stud *b'* of the latter is inserted into the top aperture *d* in the center C, while the top stud *b* is inserted through the aperture *d'* in the top part of the sleeve. Owing to the flare of the sleeve F from its middle part outwardly in the direction of both ends the center C E will have a limited pivotal motion on the neck-yoke pivots or trunnions *b b'*, which permits it to give or yield sufficiently to accommodate itself to the motions of the tongue, as well as the neck-yoke, without twisting or distorting the center proper at the point where it is attached to the neck-yoke bar.

By this construction and arrangement of the center the leathers, which form the center proper and take the wear and strain of the tongue, will last a long time, due to the adjustability of the sleeve F, by which they are connected movably to the neck-yoke, so as to outlast centers of the ordinary construction, which soon become twisted and distorted, so as to require frequent renewal. At the same time the leathers *c c* can easily be removed and new ones substituted, if desired, by removing the rivets *e' e'*, so that the leathers can be withdrawn from the casing-plate E with the same facility and expediency as usual.

Having thus described my invention, I

claim and desire to secure by Letters Patent of the United States—

1. The adjustable neck-yoke "center" herein shown and described, comprising the apertured center proper, C, of leather or other suitable material, having a central tongue aperture D and a smaller aperture *d*, in combination with the casing-plates E having aperture E' and provided with the top sleeve F having a central aperture *d'* corresponding to the aperture *d* in the center C and outwardly flaring ends; substantially as and for the purpose shown and set forth.

2. The combination with the neck-yoke A provided with central plates B, B' having studs *b b'* of the adjustable "center" or tongue-bearing comprising the apertured leather center C and casing-plate E having the sleeve F provided with apertures *d', d'*, and flaring laterally from its middle-part toward both ends; substantially as and for the purpose shown and set forth.

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

TARGE G. MANDT.

Witnesses:

BEN. E. WAIT,
A. O. ERICKSON.