

No. 751,959.

PATENTED FEB. 9, 1904.

E. C. STILLWELL.
NECK YOKE CENTER.

APPLICATION FILED NOV. 28, 1903.

NO MODEL.

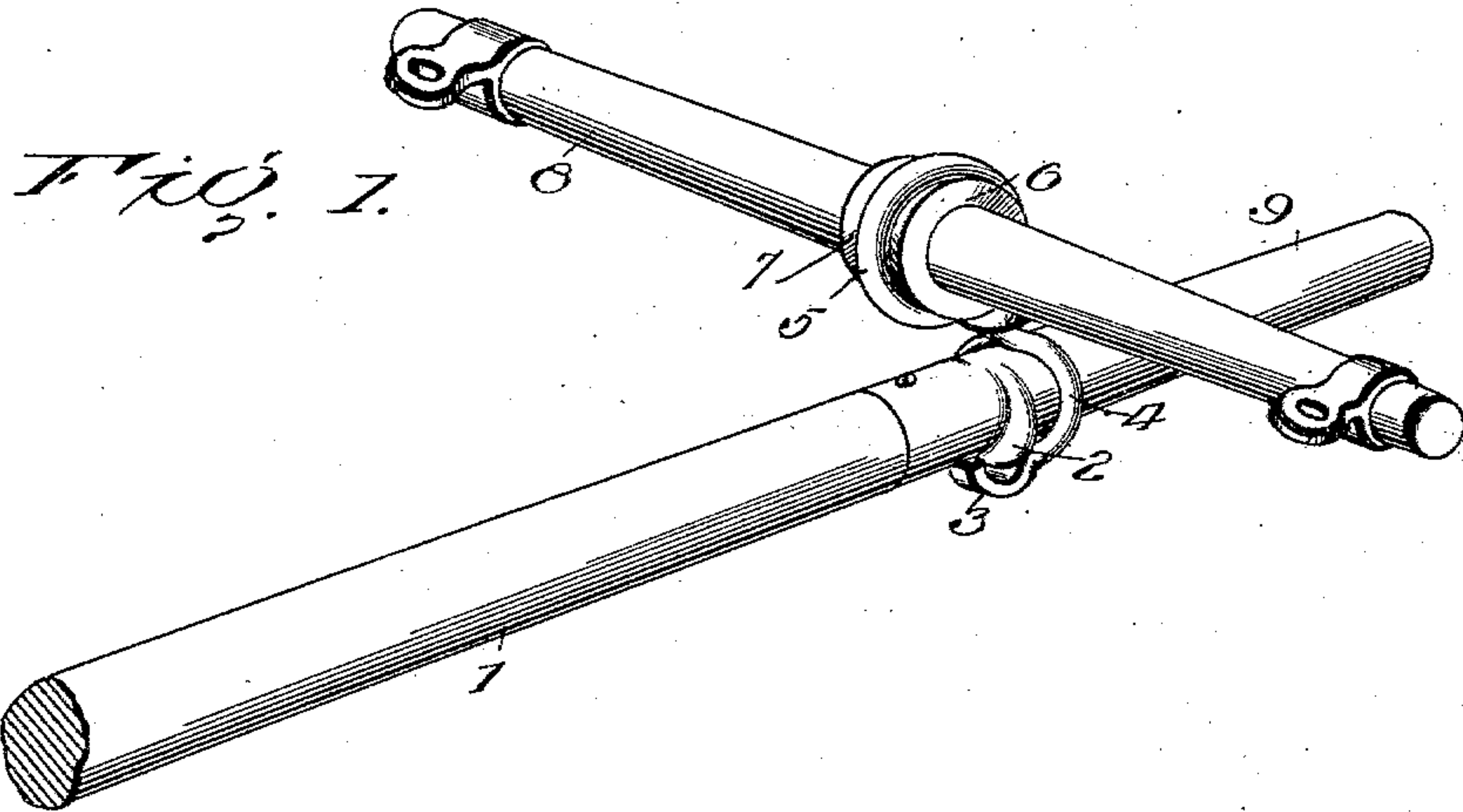


FIG. 2.

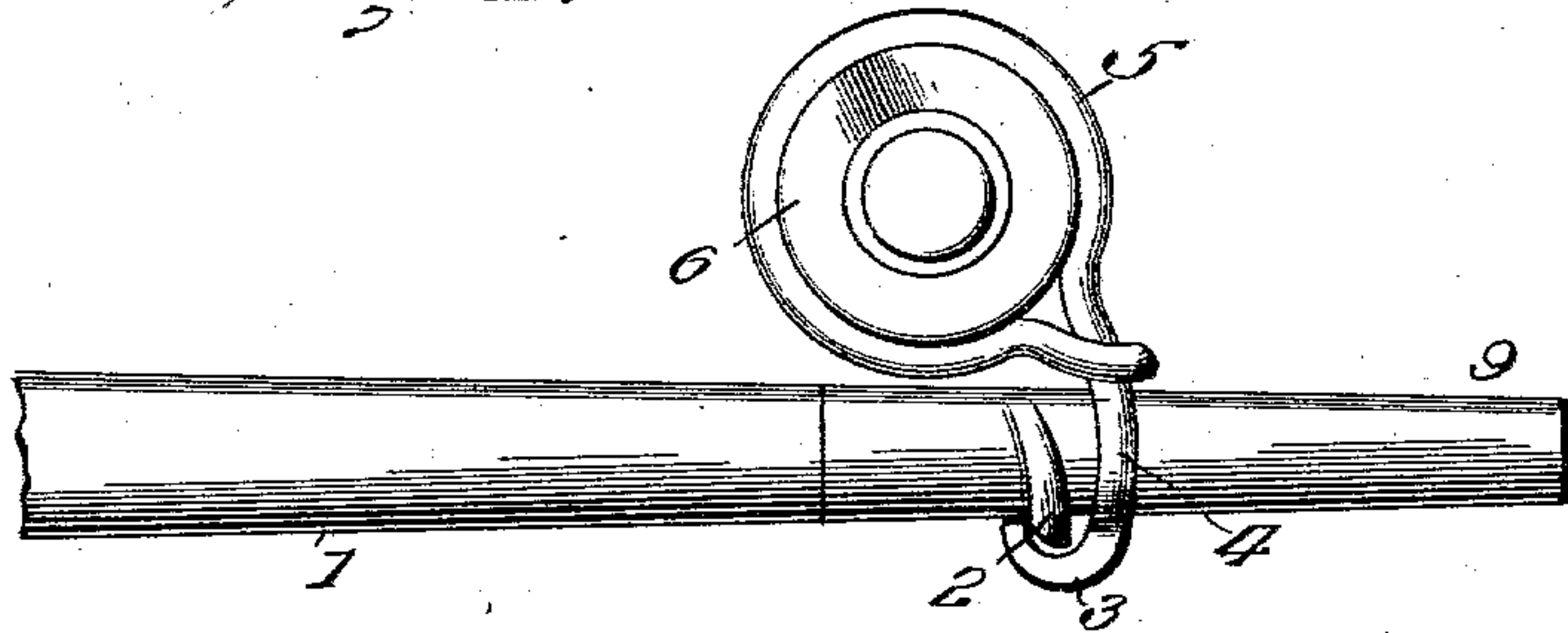


FIG. 3.

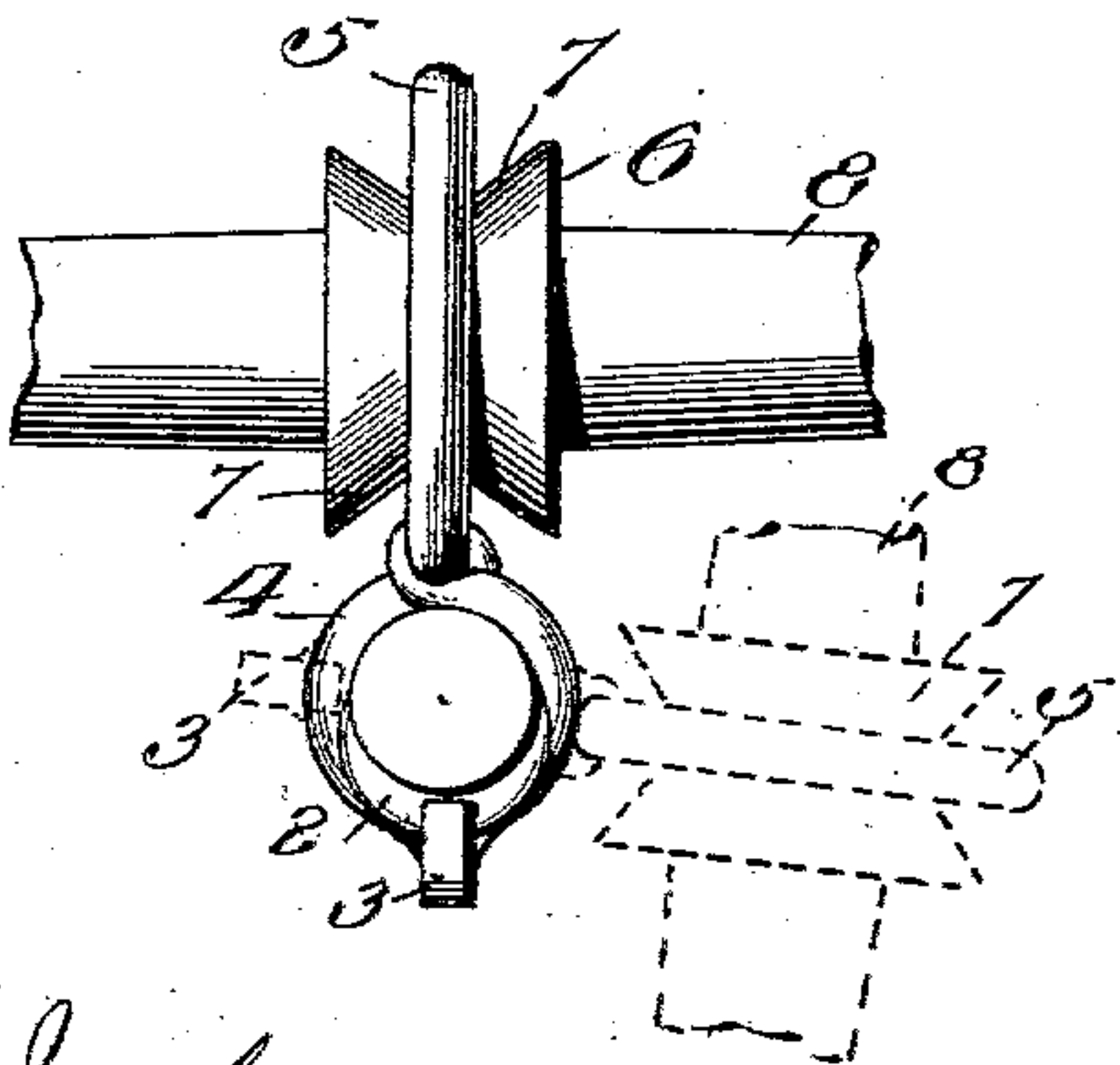
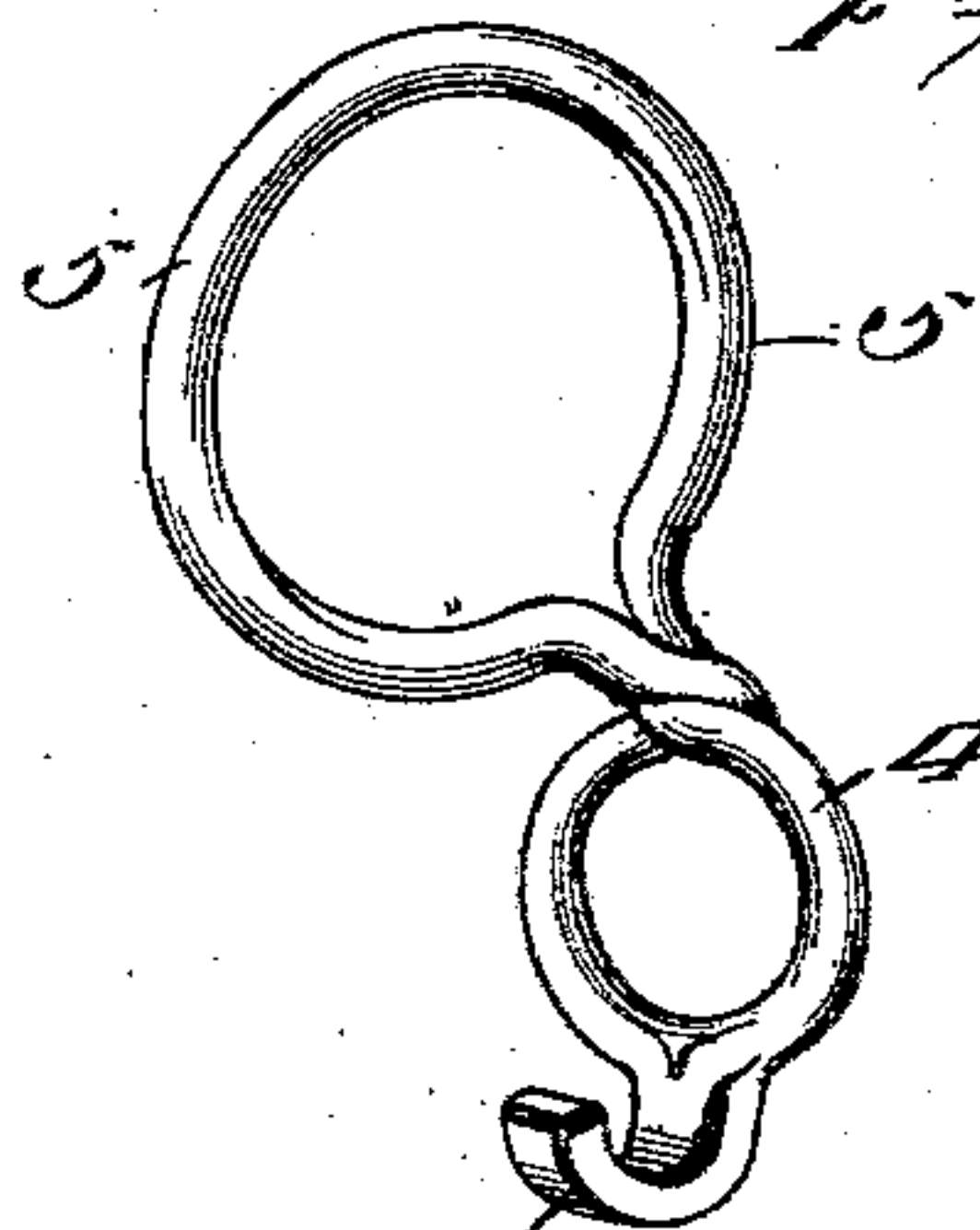


FIG. 4.



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EDWIN C. STILLWELL, OF BETHANY, MISSOURI.

NECK-YOKE CENTER.

SPECIFICATION forming part of Letters Patent No. 751,959, dated February 9, 1904.

Application filed November 28, 1903. Serial No. 183,006. (No model.)

To all whom it may concern:

Be it known that I, EDWIN C. STILLWELL, a citizen of the United States, residing at Bethany, in the county of Harrison and State of Missouri, have invented certain new and useful Improvements in Neck-Yoke Centers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists of certain novel features of combination and construction of parts necessary to produce a reliably-efficient neck-yoke center, as will be hereinafter fully described and claimed.

The prime object of my invention, among others, is to provide a neck-yoke center whereby the neck-yoke may be readily attached to and detached from the end of the tongue in such a manner that the least possible friction will result, while at the same time it will be practically impossible to casually disconnect the neck-yoke from the tongue during the use thereof, all of which I am enabled to accomplish in a manner conducive to perfect safety and at the same time without the employment or use of bolts, rivets, or pivot-points, there being but two simple cooperating parts employed to accomplish such result.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which are made a part of this application, and in which—

Figure 1 shows a perspective view of my invention complete applied to use upon an ordinary tongue of a vehicle. Fig. 2 is a side elevation thereof. Fig. 3 is a front view of my neck-yoke and its tongue-engaging attachment, showing by dotted lines the manner of placing my neck-yoke in engagement with the tongue or disconnecting the same therefrom. Fig. 4 is a perspective detail view showing the preferred means for separably connecting the neck-yoke to the tongue.

For convenience of reference to the various details of my invention and cooperating accessories numerals will be employed, the same numeral applying to a similar part throughout the several views, and referring to the

drawings, 1 indicates a vehicle-tongue of the usual or any preferred construction. Near the end of the tongue and upon the lower side thereof I form a rib or swell 2, which is most prominent or largest on the under side, while the upper ends thereof extend to a point near or slightly beyond the sides of the tongue, said rib being designed to afford a seat to engage with the hook 3 upon the lower end of the ring 4, which latter is connected to or integrally formed with the ring 5 in any preferred way and adapted to loosely encircle the central portion of the neck-yoke thimble 6, which latter is provided in its central portion with an annular groove or recess 7 to insure a perfect centering of the ring 5 therein, as more clearly shown in Fig. 3. Inasmuch as the ring 5 thus loosely fits around the collar or thimble 6, the neck-yoke 8 (to which the said thimble is rigidly secured) is left free to turn within the ring 5, and thereby to accommodate itself to the varying movements or strain placed thereon incident to its use, thus placing the strain upon the yoke directly in the center thereof.

In Fig. 4 it will be observed that I have formed the rings 4 and 5 integrally from a single piece of material, while the hook-section 3 is attached directly to the lower end of the ring 4, and such hook, if preferred, may be integrally formed therewith.

The foregoing construction, while simple and cheap in character, is at the same time a thoroughly efficient method of forming said parts, though they may be variously constructed and combined, the object being to rigidly unite the rings 4 and 5 and the hook-section 3, whereby said parts will more reliably cooperate with each other and with the neck-yoke and tongue, thus wholly eliminating all unnecessary joints and pivot-points and insuring that the neck-yoke proper will be at all times truly centered relative to the tongue.

Inasmuch as the upper ends of the rib-section 2 gradually reduce in size or merge into the straight surface of the tongue or tongue-cap, it is obvious that when the ring 4 is turned so as to bring the hook-terminal 3 to the side of the tongue said hook will be out of engagement with the rib, and the ring 4

may thus be easily slipped off of the end of the tongue, thereby enabling my neck-yoke to be readily removed from the operative position on the tongue.

5 The rib-section 2 is preferably cast as a part of the metallic terminal or end piece 9, commonly placed upon the end of a tongue to protect it against undue wear thereof.

10 Neck-yoke centers as now commonly constructed usually consist of a ring passing around the neck-yoke and secured thereto by a staple, which limits the lateral movement thereof, said ring being designed to fit within another ring passing around the end of the
15 tongue; but this construction, while not being so secure or reliable, causes more or less noise in rattling incident to the use thereof, while at the same time a greater number of pivotal points are provided, thereby insuring a greater
20 amount of wear and a consequent shortening of the life or usefulness of the connection. It is also sometimes common to employ a suitable piece of leather fitting loosely around the central part of the neck-yoke and having a depend-
25 ing portion provided with an opening to receive the end of the tongue; but this construction is usually found unreliable, inasmuch as the strain placed upon it induces rapid wear and consequent deterioration. Other forms
30 of neck-yoke connections are provided with a greater or less number of bolts, pivot-points, or eyebolts, all of which produce a great deal of rattling and are found unsatisfactory in other ways, and I therefore call particular at-
35 tention to the fact that I have provided a very simple form of connecting means between the neck-yoke and the tongue, inasmuch as I have wholly eliminated the use of bolts of all kinds, as well as links and other rattling and
40 wearing parts.

It will be seen that I have provided a very simple though reliably efficient neck-yoke center, whereby it may be placed in coöperation with the end of a tongue or readily dis- 45 connected therefrom, and while I have described the preferred combination and construction of parts deemed necessary in carrying out my invention I desire to comprehend in this application all substantial substitutes and equivalents that may be regarded as 50 fairly falling within the scope of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is— 55

The herein-described neck-yoke center comprising the combination with the tongue having an end cap or terminal 9 provided with a rib 2 upon its under side, of a neck-yoke having a fixed central collar 6 provided with an 60 annular groove in its middle portion; a ring loosely fitting in said groove; an auxiliary ring 4 adapted to receive the end of the tongue and rigidly connected to said ring 5, said ring 4 having a hook-terminal 3 upon its lower end 65 adapted to coöperate with said rib upon the tongue-terminal whereby the ring 4 cannot casually slip off the tongue and the wear incident to use will be limited to the frictionally-engaged parts, and the neck-yoke truly centered, all combined substantially as specified 70 and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses:

EDWIN C. STILLWELL.

Witnesses:

J. C. WILSON,
J. NOLL.