

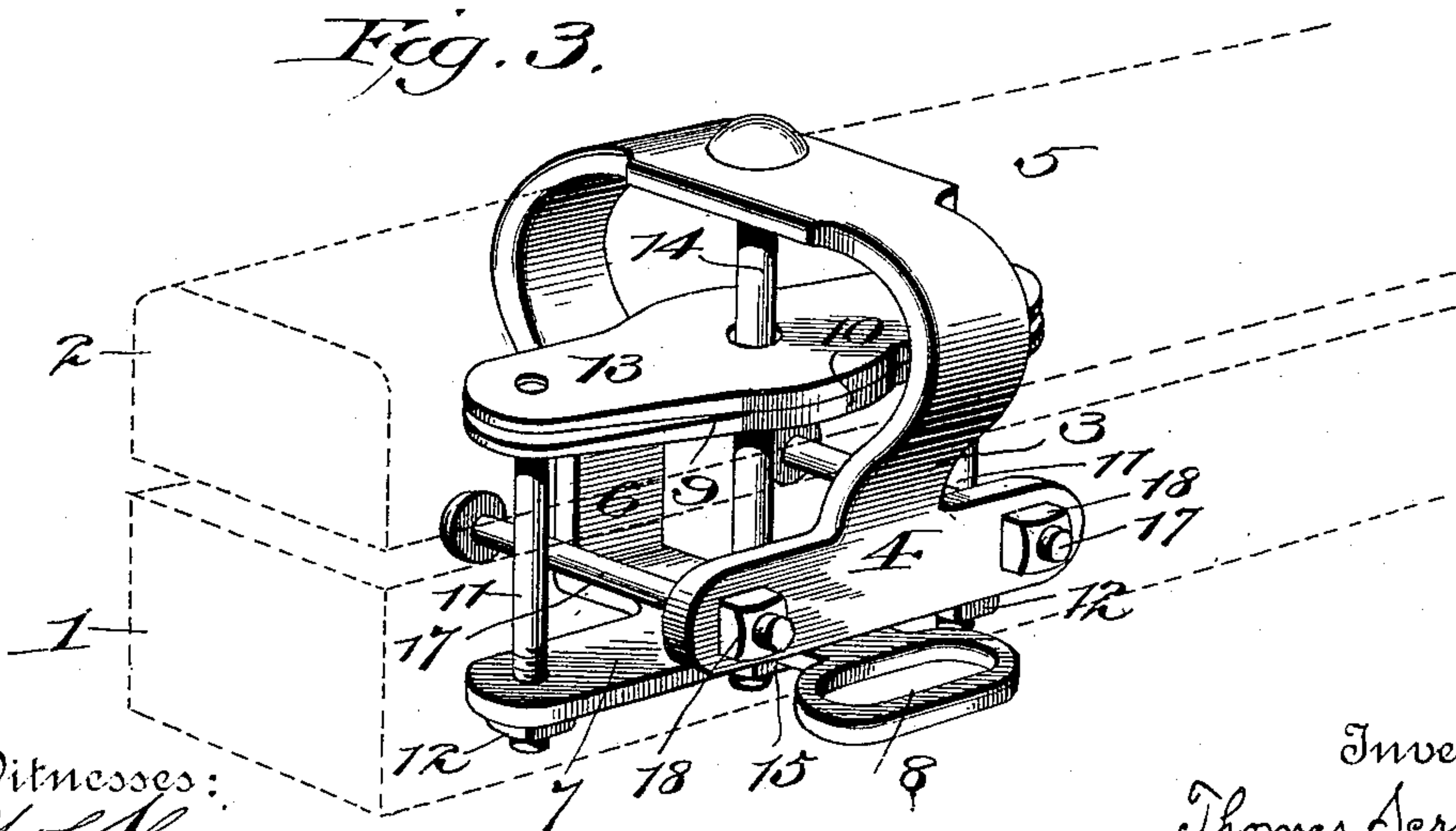
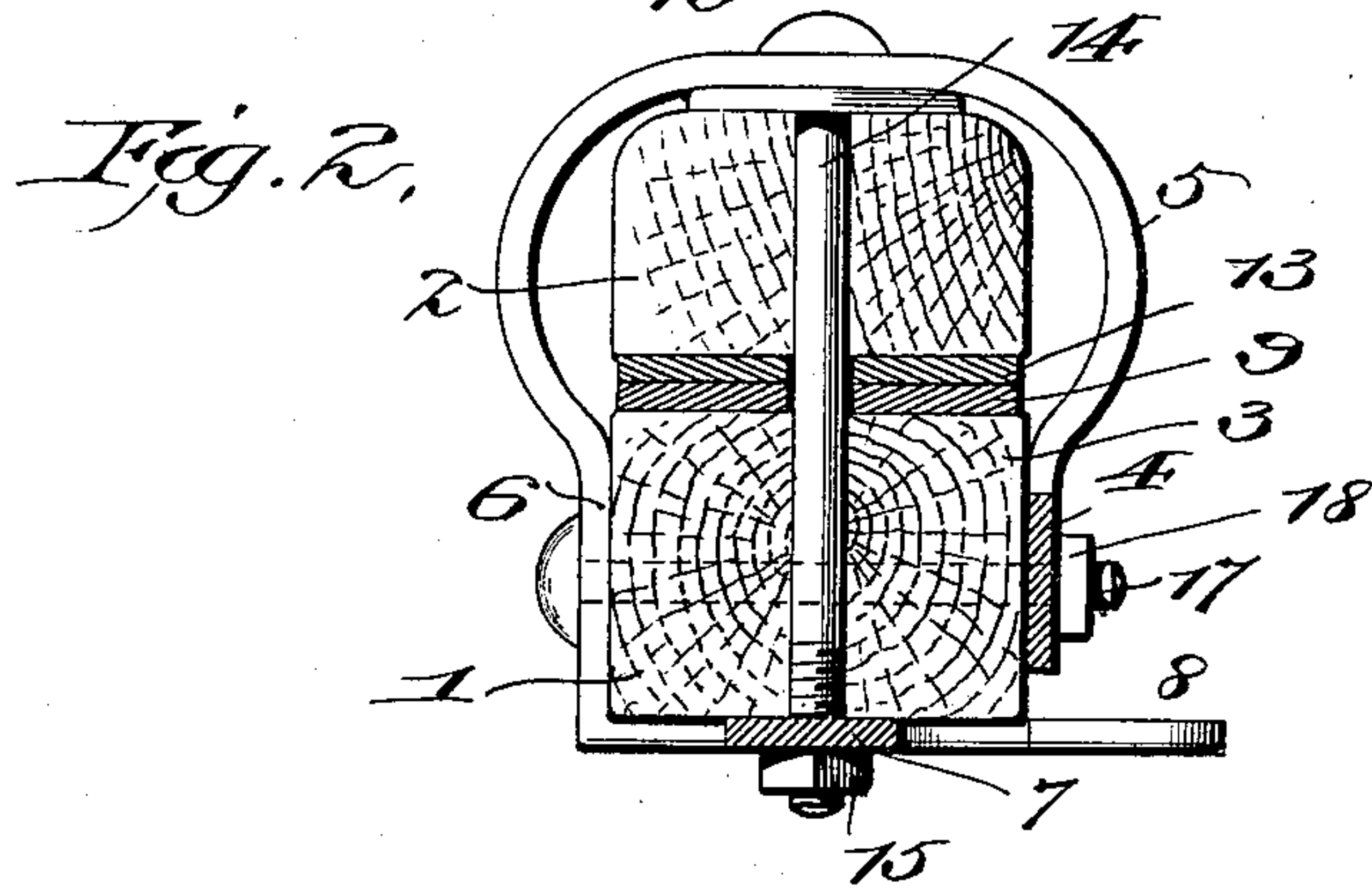
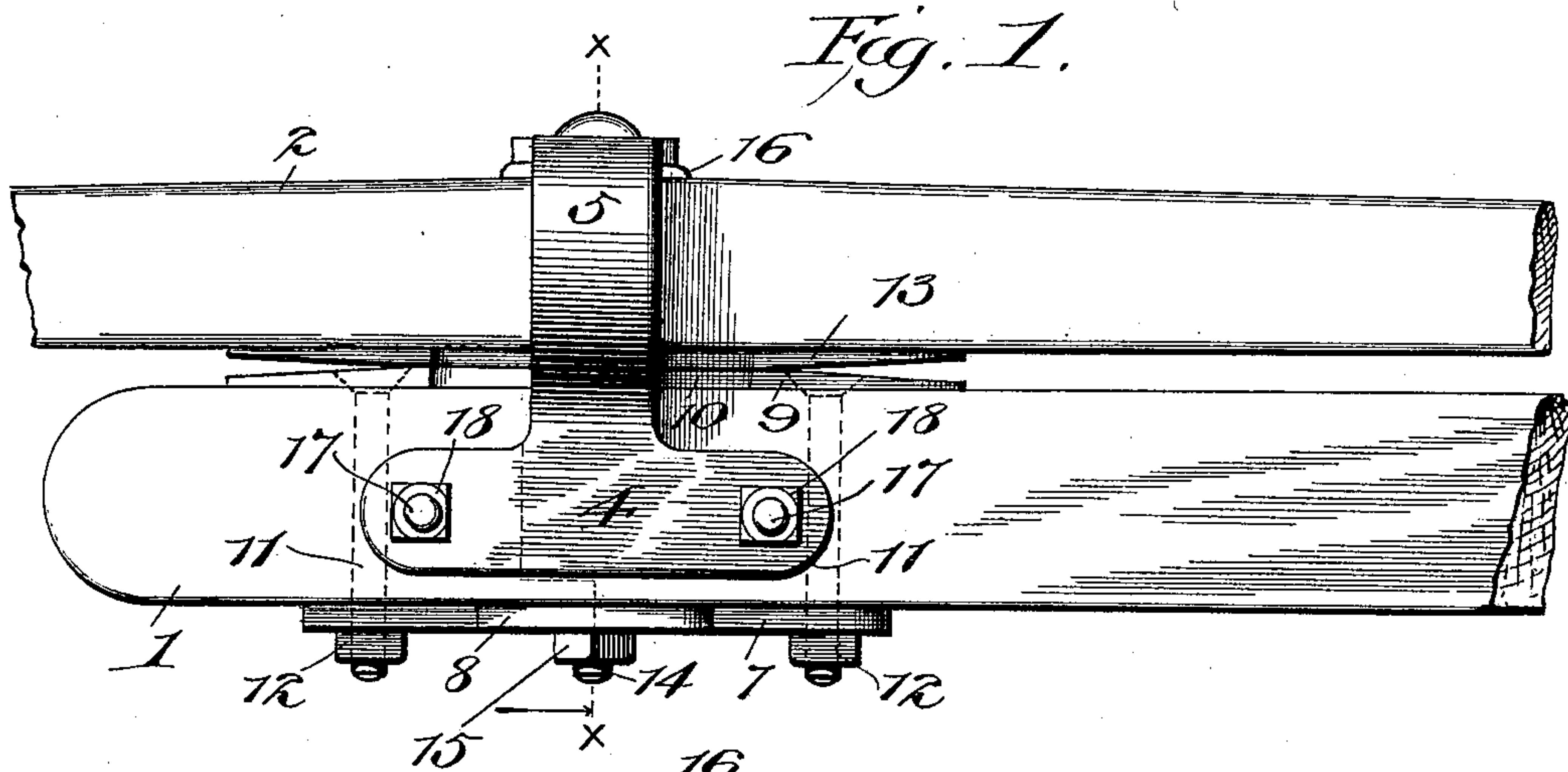
No. 616,204.

Patented Dec. 20, 1898.

T. SCRIVENER.
WHIFFLETREE ATTACHMENT.

(Application filed Feb. 28, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

THOMAS SCRIVENER, OF BELLE FOURCHÉ, SOUTH DAKOTA.

WHIFFLETREE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 616,204, dated December 20, 1898.

Application filed February 28, 1898. Serial No. 671,912. (No model.)

To all whom it may concern:

Be it known that I, THOMAS SCRIVENER, a citizen of the United States, residing at Belle Fourché, in the county of Butte and State of South Dakota, have invented certain new and useful Improvements in Whiffletree Attachments; 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.

The object of this invention is to provide an improved coupling for securing singletrees to doubletrees which will be of simple and inexpensive construction, as well as capable of easy application, and adapted to retain the singletree if the pivot-bolt should wear out or become broken and to be so arranged as to prevent any splitting of either singletree or doubletree, caused by the constant strain thereon, or any loosening or rattling of its parts.

The invention consists of certain improved features of construction and novel arrangements and combinations of parts, more fully described hereinafter, and set forth in the appended claims.

In the accompanying drawings, Figure 1 is a detail side elevation of a singletree and doubletree equipped with my improvements; Fig. 2, a cross-section taken on line *xx* of Fig. 1; and Fig. 3, a perspective view of the invention, the singletree and doubletree being shown in dotted lines.

An end of the usual doubletree is shown at 1, and 2 is a section of a singletree. I employ a metallic strap 3, made in a single integral piece having a horizontally-extending connecting-plate 4 at one end, which lies flat against the rear side of the doubletree. This strap is formed into a horizontally-expanded guard-loop 5, which extends over the singletree and is sufficiently large to give it free play. It is bent against the front of the doubletree at 6 and is formed near its end into a flat horizontally-disposed connecting-plate 7, lying against the bottom of the doubletree, and terminates in a horizontal eye or loop 8, adapted to receive the stay-strap commonly employed to limit the movement of the doubletree.

A wear-plate 9, having a broadened raised central portion 10, is located on top of the doubletree, and two screw-threaded bolts 11 pass vertically through the ends of this plate, the doubletree, and the ends of connecting-plate 7, said bolts being provided with nuts 12. A wear-plate 13, similar to plate 9, is fastened to the under side of the singletree, and the raised portions of said plates bear against each other.

The pivot-bolt is shown at 14, and it passes in a vertical direction through the highest point of guard-loop 5, the singletree, the wear-plates, the doubletree, and the connecting-plate at the bottom of the latter, where it is provided with a nut 15. A washer 16, through which the pivot-bolt also passes, is located between the upper part of the guard-loop and the top of the singletree.

Two screw-threaded bolts 17 pass horizontally through the doubletree and the ends of the connecting-plate 4, the same being provided with nuts 18.

The two sets of bolts 11 and 17, it will be observed, pass through the doubletree at right angles to each other, the bolts of each set being located on opposite sides of the pivot-bolt, where the strain is greatest. This arrangement is very advantageous, because all splitting of the doubletree is rendered practically impossible. The arrangement and disposition of the bolts also prevent them and the nuts from working loose by continued use, and thus all rattling is obviated. The employment of the wear-plates and washer, while giving the singletree full and free play, reduces the friction and wear on the parts to a minimum. The provision of the guard-loop renders separation of the singletree from the doubletree impossible if the pivot-bolt shall become worn and broken, and because of the formation of the metallic strap, of which the guard-loop constitutes a part in a single piece, and the manner of securing both ends thereof to the doubletree little injury would result to the singletree and practically none to the doubletree and the coupling in the event of such an accident.

I am aware that it has heretofore been proposed to employ a guard-loop over a singletree in order to prevent its detachment in the

event of the breaking of the pivot-bolt, and I do not, therefore, lay claim, broadly, to such a construction; but

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination with double and single trees, of a guard having an intermediate portion, loosely embracing the singletree, a pivot-bolt passing through the single and double trees, and bolts passing through one end of the guard and through the doubletree in a horizontal direction on opposite sides of the pivot-bolt, the other end of the guard being also connected to the doubletree.

2. The combination with single and double trees, of a guard having an intermediate portion loosely embracing the singletree, a pivot-bolt passing through the single and double trees, bolts passing through one end of the guard and through the doubletree on opposite sides of the pivot-bolt in one direction, and bolts passing through the other end of the guard on opposite sides of the pivot-bolt in a direction at an angle to the first-named bolts.

3. The combination with single and double trees, of a guard having an intermediate portion loosely embracing the singletree and ends one of which lies against the side of the dou-

bletree and the other against the bottom thereof, a pivot-bolt passing through the intermediate portion of the guard and the single and double trees and that end of the guard which lies against the bottom of the doubletree, bolts passing through one end of the guard and the doubletree in one direction and on opposite sides of the pivot-bolt, and a second set of bolts passing through the other end of the guard and the doubletree on opposite sides of the pivot-bolt and disposed substantially at right angles to the first set of bolts.

4. The combination with single and double trees, of a rigid strap having one end secured to the doubletree at the side thereof, its intermediate portions formed into a guard-loop which loosely embraces the singletree, thence brought down and under the doubletree and there secured to it, and having its remaining end extending laterally beyond the doubletree and fastened into a stay-strap eye.

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

THOMAS SCRIVENER.

Witnesses:

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