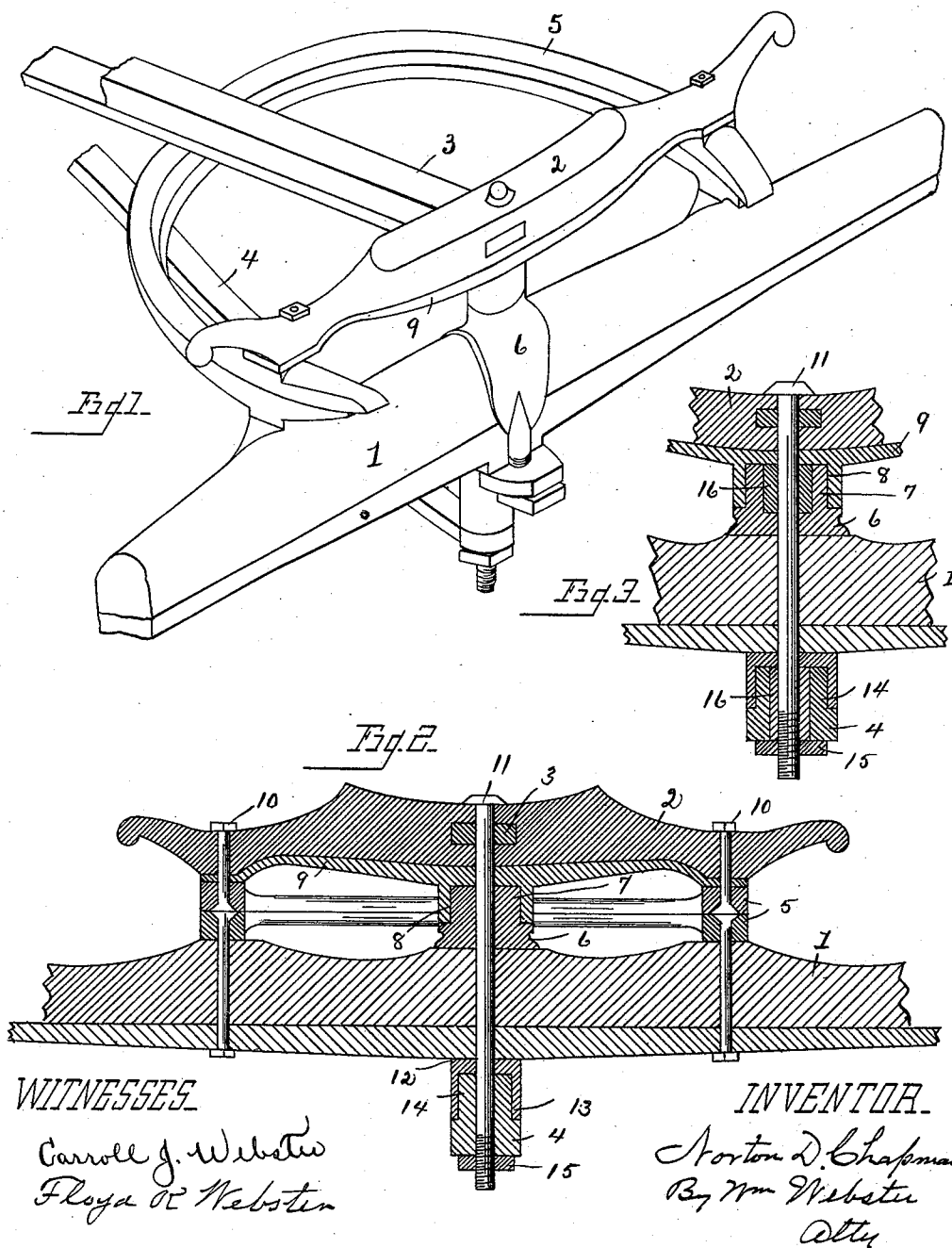


(No Model.)

N. D. CHAPMAN.
CARRIAGE COUPLING.

No. 478,687.

Patented July 12, 1892.



UNITED STATES PATENT OFFICE.

NORTON D. CHAPMAN, OF TOLEDO, OHIO, ASSIGNOR OF ONE-HALF TO
ALPHEUS CHAPMAN, OF SAME PLACE.

CARRIAGE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 478,687, dated July 12, 1892.

Application filed April 6, 1891. Serial No. 387,794. (No model.)

To all whom it may concern:

Be it known that I, NORTON D. CHAPMAN, of Toledo, county of Lucas, and State of Ohio, have invented certain new and useful Improvements in Carriage-Couplings; 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, and to the figures of reference marked thereon, which form part of this specification.

My invention relates to a carriage-coupling, and has for its object to provide a coupling for the head-block, axle, and reach-iron that shall be positive in assembling the parts, free from noise and rattling, and that shall present a large wearing-surface where the parts contact.

A further object is to provide a coupling in which bushings of hard metal may be used.

With these objects in view the invention consists in the parts and combination of parts hereinafter described, and pointed out in the claim.

In the drawings, Figure 1 is a perspective view of a head-block, axle, and reach assembled by means of my improved coupling. Fig. 2 is a longitudinal vertical elevation of the same, and Fig. 3 is a like view in section showing the bearings bushed with hard metal.

1 designates the axle, 2 the head-block, 3 the reach, 4 the brace from the coupling to the reach, and 5 the fifth-wheel, these parts being held assembled by means of my improved coupling, which consists of a clip 6, having a circular top portion 7, which projects upwardly and enters a circular cavity 8, formed in a cross-bar 9, secured to the under side of the head-block and held in place by bolts 10, which secure the upper section of the fifth-wheel to the head-block, and also by a bolt 11, passed through the center of the head-block and axle. Plate 9 may, if desired, be of less length than that shown and be held to the head-block by nails or bolts driven or secured in the head-block, as the bolt 11 serves to hold the same in position.

12 designates the clip-plate, formed with a circular cavity 13, into which a circular boss 14, formed on the brace 4, enters, the plate and boss being perforated to receive bolt 11,

which passes entirely through the same, the bolt being provided with a nut 15, which when screwed firmly against the under side of brace 4 holds in the same in place, although it will be understood that while the weight upon the head-block holds plate 9 upon the projection 7 with sufficient force to prevent disengagement should the bolt 11 become broken or displaced. The brace 4 is also held by its fastening with the reach to cause the boss 14 to be normally in engagement with the clip-plate, so that there is always an absolute guarantee of safety in the coupling.

In the use of the coupling herein described there is a large bearing-surface at the pivots, and noise or rattling is avoided.

In Fig. 3 I have shown the annular chamber 7 and the boss 14 supplied with a bushing 16, of brass or analogous hard metal, this bushing being desirable in light couplings to prevent wear at the point of contact with the bolt 11.

It will be seen that I have provided a coupling of small expense, having a large bearing-surface at points of wear, and by the telescopic arrangement avoiding jar or rattling of the parts, with absolute safety against disengagement of the parts.

I wish it understood that I may transpose the parts—that is, form the annular chamber in the clip and the projection upon the plate 9 or form the clip-plate with a bearing and the brace with an annular recess—without departing from the spirit of my invention.

What I claim is—

In a carriage-coupling, a head-block plate formed with an annular-recess, a clip having a recessed circular boss engaging the said recess, a clip-plate secured to the clip and having an annular recess, a brace having a recessed boss engaging the latter recess, and bushings located in the recesses of the two bosses, in combination with a king-bolt for assembling the several parts of the coupling.

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

NORTON D. CHAPMAN.

Witnesses:

WILLIAM WEBSTER,
CARROLL J. WEBSTER.