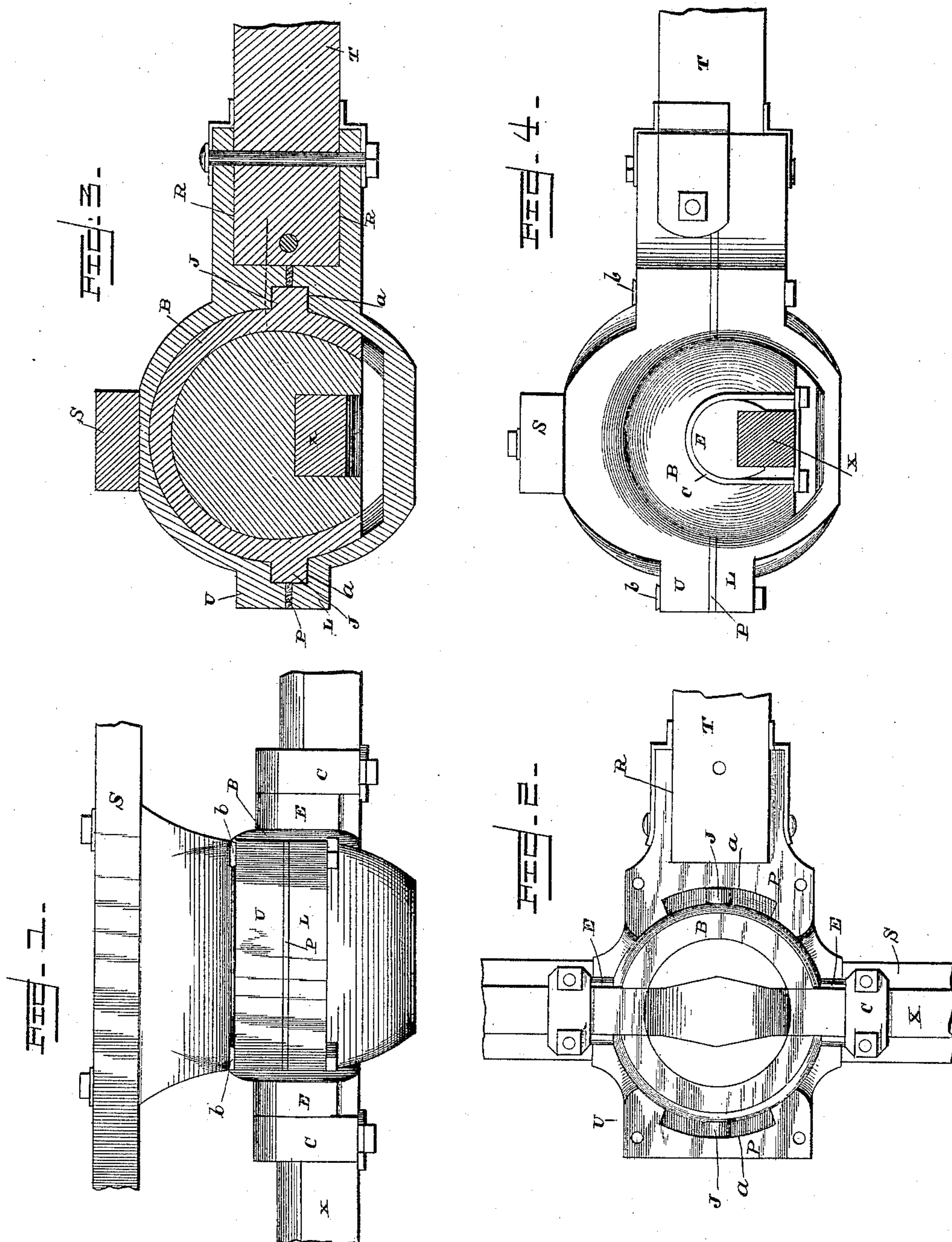


(No Model.)

T. A. WATSON.
BALL AND SOCKET FIFTH WHEEL.

No. 465,080.

Patented Dec. 15, 1891.



Witnesses

C. S. Linnell Jr.
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By his Attorneys,

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Inventor

Thos. A. Watson.

UNITED STATES PATENT OFFICE.

THOMAS A. WATSON, OF BENTONVILLE, ARKANSAS.

BALL-AND-SOCKET FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 465,080, dated December 15, 1891.

Application filed May 9, 1891. Serial No. 392,154. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. WATSON, a citizen of the United States, residing at Bentonville, in the county of Benton and State of Arkansas, have invented a new and useful Ball-and-Socket Fifth-Wheel, of which the following is a specification.

This invention relates to carriages and wagons, and more especially to the fifth-wheels thereof; and the object of the same is to produce certain improvements in such members of vehicles.

To this end the invention consists in the details of construction hereinafter more fully described and claimed, and as illustrated on the sheet of drawings, wherein—

Figure 1 is a front elevation of this device. Fig. 2 is a bottom plan view with the lower member of the casing removed. Fig. 3 is a central longitudinal vertical section of Fig. 1. Fig. 4 is a side elevation of Fig. 1.

Referring to the said drawings, the letter U designates the upper and L the lower members of the casing, which are connected by bolts *b*, and S is the spring or bolster bolted to the top of the upper member, as seen. These two members are recessed at R at their rear ends, and within this recess is secured the front end of the perch or reach T. The meeting faces of the two members of the casing are preferably slightly separated by packing P, which may be removed and replaced by thinner packing to bring the members closer together when it becomes necessary by the wearing of their inner faces, and such inner faces are so shaped as to form a globular opening, but provided at front and rear with arc-shaped apertures *a*.

X is the axle, which passes transversely through the casing, and B is a ball or globe fitting closely yet loosely within the opening in the casing and mounted upon the axle; but the lower portion of this ball is cut off, as best seen in Fig. 3. At each side of the ball is an extension E, recessed so as to pass over the axle X, and clips C embrace the axle and the extensions, whereby the ball is held firmly, but removably, in place thereon. The ball is preferably hollow, and after the axle has been

secured therein the ball is filled with plaster-of-paris, lead, or other plastic and strong material to prevent the rattling and displacement of parts. At the sides of the ball-quartering to the extensions E are projections J, which move in the arc-shaped apertures *a*, and by this means the axle is prevented from twisting in the casing. As seen in Fig. 4, the sides of the casing are open to a considerable size, and this allows the extensions E to move up or down when they turn on the projections J or laterally when the projections move in the apertures *a*. The first movement accommodates the tipping of the axle as when one wheel passes over a stone, and the latter movement permits the axle to move as is necessary when the vehicle is rounding a corner.

With a fifth-wheel of the character above described the upper member of the casing is firmly supported at all times by the ball, and yet the latter is permitted to have such motions in the casing as are necessary in an ordinary vehicle. As above stated, the packing is replaced by thinner packing when the parts become worn. The axle may be removed from the ball and the perch may be disconnected from the casing when desired.

Various changes may be made in the details of construction without departing from the spirit of my invention.

What is claimed as new is—

In a fifth-wheel, the combination, with the casing having an appropriately globular opening and also open at the sides and connections between this casing and the spring or bolster and perch, of a ball within said opening, having extensions projecting through the open sides of the casing, the axle passing through the ball and the extensions, and clips connecting the latter with the axle, substantially as described.

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

THOS. A. WATSON.

Witnesses:

J. M. WEIR,
LEE MERNAGH.