

J. A. JACKSON.
COUPLING YOKE.

APPLICATION FILED JAN. 20, 1908.

946,603.

Patented Jan. 18, 1910

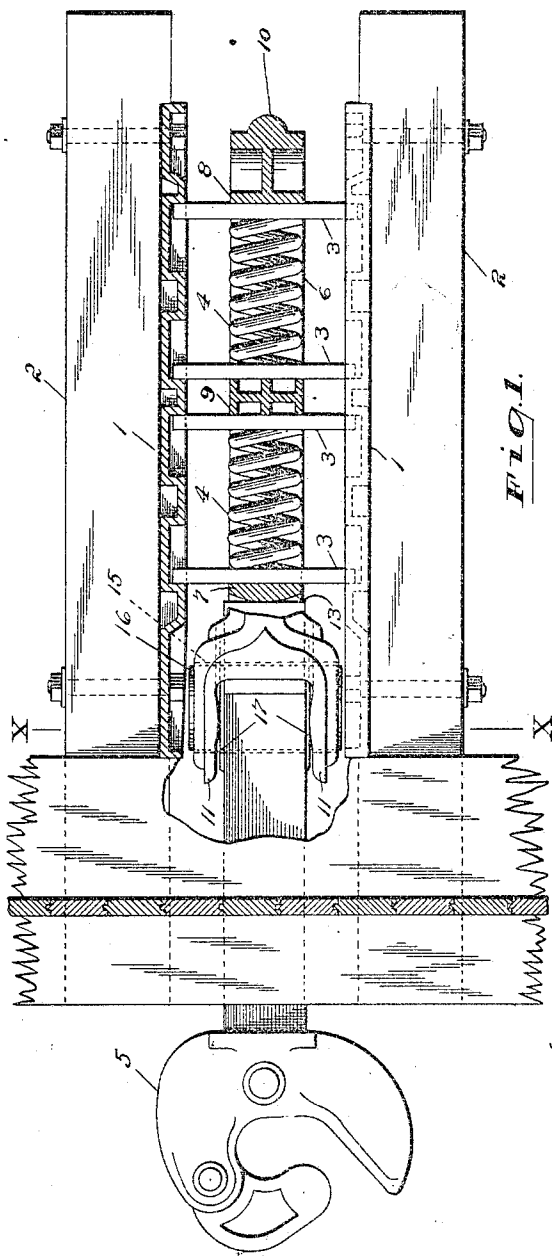


FIG. 1.

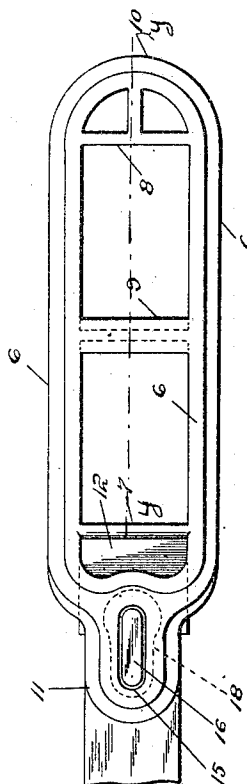


FIG. 2.

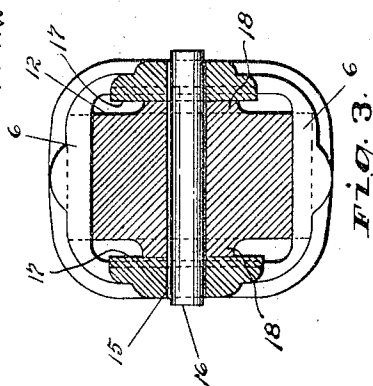


FIG. 3.

WITNESSES:

Walter A. Greenburg
A. M. Dove.

INVENTOR
JOHN A. JACKSON

BY *Charles H. Jackson*
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN A. JACKSON, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO DEXTER L. PHIPPS, OF CHICAGO, ILLINOIS.

COUPLING-YOKE.

946,603.

Specification of Letters Patent.

Patented Jan. 18, 1910.

Application filed January 20, 1908. Serial No. 411,727.

To all whom it may concern:

Be it known that I, JOHN A. JACKSON, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Coupler-Yokes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to coupler yokes for railway draft mechanism whereby standard forms of couplers and draft riggings may be operatively connected without the use of bolts, rivets or other like fastenings to transmit thrusts and strains to the shock absorbing members without appreciable lateral or torsional effect on the latter.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a plan view, partially in section, of a draft mechanism having a coupler yoke embodying features of the invention, together with adjacent portions of the draft timbers and sills of a car frame. Fig. 2 is a view of the yoke and inner end or butt of a standard coupler, showing the section line $y-y$ on which Fig. 1 is taken. Fig. 3 is a view in section of the yoke and coupler on or about line $x-x$ of Fig. 1.

Referring to the drawings, 1 indicates a draft rigging of any preferred standard type secured as by draft timbers 2 or in any suitable way to the main sills or underframe of a car and provided with shock absorbing members as for example, transverse follower plates 3 backed by springs 4, friction blocks or any other of the well known buffer devices. A coupler 5 of standard type is connected to the draft rigging by a yoke that has a body consisting of parallel top and bottom members 6 with end stops 7 and 8 and properly disposed cross-stop 9 all integrally united or formed in one piece, and suitably ribbed and flanged for strength and lightness, the stops being disposed and arranged to adapt them for the particular form of draft rigging used and to engage the shock absorbing members so as to have lateral play thereon. Preferably the rear ends of the top and bottom members are arched together to form a backing or brace 10 for the rear stop 8. The horizontal top and bottom members extend forward of the front stop and

form with perpendicular side wings 11 a yoke head to loosely engage the inner end or butt 12 of the coupler 5. The outer face 13 of the front end stop is crowned to act as a center-bearing abutment for the inner end of the coupler, while the extended wings 11 are slotted to register with the horizontal elongated transverse slot 15 usual in a standard coupler. A transverse pin or key 16 loosely engaging the aligned slots locks the parts together.

The inner faces 17 of the wings 11 are transversely crowned to permit slight lateral rocking motion of the coupler thereon, and the latter may have marginal flanges 18 around its transverse slot as bearing surfaces against the wings. The coupler butt may also be enlarged vertically to more closely engage the top and bottom walls of the coupler yoke and to increase the mass of metal behind the transverse slot. Where the coupler yoke head lies normally between the draft timbers or draw plates of the draft rigging, the latter prevent endwise displacement of the key 16. By this method of construction, the slight lateral oscillations of the coupler head do not bring any torsional strains or shocks on the draft rigging.

The shocks against the coupler are transmitted directly to the yoke by the coupler butt which bears centrally against the forward yoke stop, while the key whose greatest cross-section lies in the plane of greatest strain, transmits the draft load directly to the top and bottom members of the yoke. As the latter is integral, there are no rivets or bolts to shear off or work loose. The frame or body of the yoke may be varied in form for attachment to different designs of draft rigging, without altering the yoke head which is adapted to receive the butt of any standard coupler and a broken coupler may be replaced without taking down the draft rigging.

While the form of the yoke body herein shown with T-shaped flanged top and bottom members whose integrally united in-bent rear ends form a backing for the rear cross-stop, and whose central portions are bridged by a suitable cross-stop integral therewith, is preferable, it may be altered to meet different requirements of service.

Other changes may be made in the details of construction without departing from the

spirit of the invention, and I do not limit myself to any particular form or arrangement of parts.

What I claim as my invention is:—

- 5 1. The combination with a draft rigging and a coupler having a horizontal transverse slot through its inner end, of a one piece coupler yoke operatively engaging the draft
10 rigging having a head with crowned end face on which the inner end of the coupler bears and parallel perpendicular side wings with transversely crowned faces bearing
15 against the slotted faces of the inner end of the coupler, and a key passing through the wings and slotted coupler and holding the coupler end in contact with the crowned faces of the yoke head.

2. In combination with a draft rigging having transverse follower plates, of a coup-

ler yoke in the form of an elongated loop 20 with parallel sides that embraces and rests on the follower plates and with transverse stops adapted to contact with the several follower plates, a pair of side wings parallel to the plane of the loop extending from the 25 forward end of the yoke having transversely crowned inner faces, a coupler having an inner end lying between and rocking on the side walls, and a horizontal key passing through the wings and loosely engaging a 30 slot through the inner end of the coupler.

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

JOHN A. JACKSON.

Witnesses:

H. J. SUMMERS;
C. D. EULETTE.