June 24, 1930. C. E. DATH 1,766,609

YOKE MEANS

Filed Feb. 15, 1929

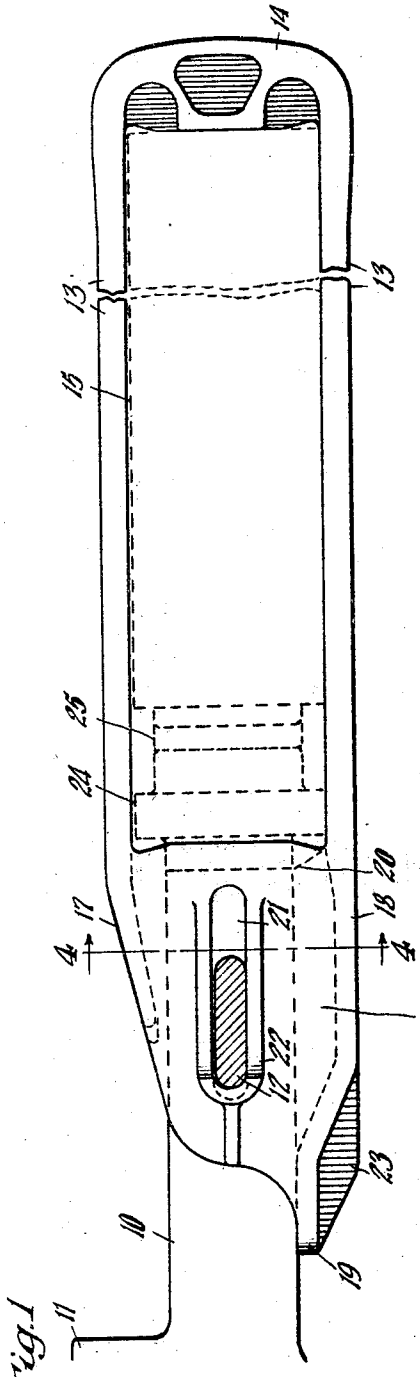


Fig. 1

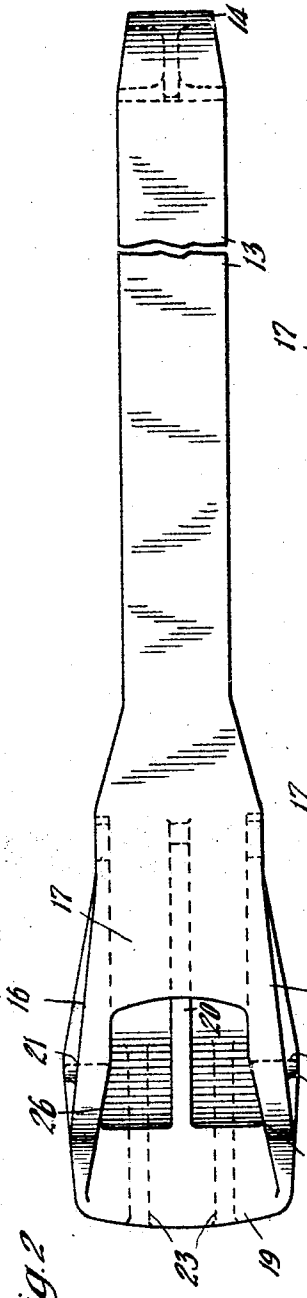


Fig. 2

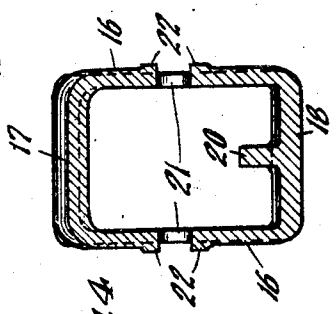


Fig. 4

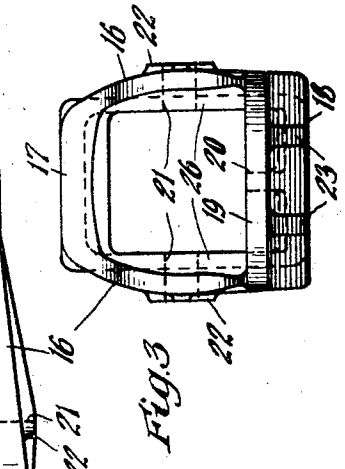


Fig. 3

Witness
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UNITED STATES PATENT OFFICE

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YOKE MEANS

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This invention relates to improvements in yoke means for connecting the coupler to the shock absorbing means of a railway draft rigging.

One object of the invention is to provide a simple and effective yoke means for railway draft riggings, wherein means is provided for supporting and properly guiding the same on the usual carry iron of the underframe structure of the car, and further having means for supporting and guiding the shank of the usual coupler to maintain the horizontal position of the latter with respect to the shock absorbing mechanism and the coupler of the adjacent car.

A more specific object of the invention is to provide a yoke having a hood member defined by spaced side walls and spaced top and bottom walls, adapted to accommodate the coupler shank therewithin, the coupler shank being anchored to the yoke by the usual coupler key extending through slots in the side walls of the hood, wherein the bottom wall of the hood is upwardly offset to provide a horizontal shelf or ledge of relatively large area above the main portion of the bottom wall for supporting the coupler shank outwardly of the usual carry iron of the underframe structure of the car, the offset portion of the bottom wall being provided with spaced, longitudinally extending ribs, having the bottom edge faces thereof aligned with the under surface of the bottom wall proper of the hood to cooperate with the carry iron and support and guide the yoke in a horizontal path, the main portion of the bottom wall being provided with an upstanding rib having the upper edge face thereof aligned with the upper surface of the offset portion or ledge of the bottom wall to form therewith a continuous guide means for supporting and guiding the coupler shank in a horizontal direction.

Other and further objects of the invention will more clearly appear from the description and claims hereinafter following.

In the drawing forming a part of this specification, Figure 1 is a side elevational view of a yoke embodying my improvements, the usual coupler being shown associated with the yoke, and the shock absorbing and follower means being indicated in dotted lines Figure 2 is a top plan view of the yoke shown in Figure 1 with the coupler omitted. Figure 3 is a front end elevational view of the yoke shown in Figure 2. And Figure 4 is a vertical transverse sectional view, corresponding substantially to the line 4—4 of Figure 1, with the coupler omitted.

In said drawings, the coupler, which is of standard dimensions and design, is indicated generally by the character 10; the same comprises the usual shank of substantially rectangular cross section, having the coupler head 11 at the outer end thereof, the coupler head being only partly shown in Figure 1. The coupler shank is anchored to the yoke by the usual coupler key 12 which extends transversely through the shank 10.

In carrying out my invention, I provide a yoke member having top and bottom spaced, longitudinally extending arms 13—13 connected by a vertical section 14 at one end, which is formed integral with the arms and cooperates with the inner end of a friction shell of a shock absorbing mechanism, the friction shell being shown in dotted lines in Figure 1 and designated by the character 15. At the forward end, the yoke is provided with a hood member defined by spaced, longitudinally extending vertical side walls 16—16 and spaced horizontal top and bottom walls 17 and 18.

As most clearly shown in Figures 1 and 2, the top and bottom arms 13 are in the form of flat bar-like members and the top and bottom walls 17 and 18 of the hood form continuations of said arms. As most clearly shown in Figures 1 and 2, the top wall 17 is shorter than the side walls 16 and is inclined downwardly and forwardly of the yoke. The bottom wall 18 has the major portion thereof in substantial alignment with the bottom arm 13, the outer end portion of said wall being upwardly offset to provide a horizontally disposed supporting ledge 19 for the coupler shank. As

shown in Figures 1 and 2, the ledge 19 projects forwardly beyond the side walls 16 of the hood and presents a relatively large supporting surface for the coupler shank. The main portion of the bottom wall 18 is provided with an upstanding central rib or web 20 which extends rearwardly from the ledge 19 and has the upper edge face thereof in substantial alignment with the upper surface of the ledge. As shown in Figures 1 and 2, the rib 20 extends substantially to the inner end of the hood. As will be evident, the ledge and rib 20 together form a continuous supporting and guide means for the bottom side of the coupler shank for the major portion of the length of said shank.

The side walls 16 of the hood are provided with aligned key receiving slots or openings 21—21 which accommodate the opposite ends of the coupler key 12. The slots 21 are reinforced by flanges 22 at the outer sides of the side walls. The reinforcing flanges 22 are of greatest width at the front ends of the slots, thereby providing sufficient metal in the side walls of the hood to withstand the strains to which the hood is subjected during outward or draft movement of the coupler.

The yoke is supported between the draft sills of the underframe structure of the car in the usual well known manner, by a saddle plate intermediate the ends of the yoke engaging the bottom arm 13 and a carry iron engaging the under side of the wall 18 to support and guide the front end of the yoke. The ledge 19 is preferably provided with two depending, spaced, longitudinally disposed ribs or webs 23—23 which extend forwardly from the bottom wall 18 and have their lower edge faces in alignment with and forming a continuation of the under surface of the main portion of the wall 18. The parts are so proportioned that the guide surface defined by the upper face of the ledge 19 and the upper edge of the rib 20, and the guide surface defined by the under face of the bottom wall 18 and the lower edges of the guide ribs 23, are spaced such a distance apart vertically as to support the coupler shank of a standard sized coupler the proper distance above the carry iron to assure alignment of the couplers of adjacent cars and alignment of the coupler shank with the shock absorbing mechanism. As most clearly shown in Figure 1, the connecting portion of the bottom wall, between the ledge 19 and the main portion of said wall, is preferably inclined and the outer edges of the ribs 23 are cut away on a corresponding inclination.

The specific type of yoke illustrated in the drawings is adapted for use in connection with a railway draft rigging, wherein the coupler has longer travel in buff than in draft and wherein a follower of special design is employed in connection with the shock absorbing mechanism; the follower, which is shown in dotted lines in Figure 1 and indicated by 24, has projections at the front and rear sides thereof, which engage respectively the inner end of the coupler shank and the wedge of the friction shock absorbing mechanism, the wedge being shown in dotted lines in the drawings and indicated by 25, the wedge cooperating with the usual friction shoes of the friction means. By providing the projection at the front side of the follower, the use of a coupler having a shank of standard over-all length is permitted.

The top wall 17 of the hood has the front edge thereof inwardly offset with respect to the side walls so as to clear certain obstructions of the car underframe structure and permit the necessary outward movement of the yoke during a draft action. The side walls 16 of the yoke diverge outwardly at the forward ends, as indicated at 26—26, so as to permit the necessary lateral pivotal movement of the coupler shank when cars are operated on curved track.

While I have herein shown and described what I consider the preferred manner of carrying out my invention, the same is merely illustrative and I contemplate all changes and modifications which come within the scope of the claims appended hereto.

I claim:

1. In a yoke, the combination with a strap portion adapted to enclose a shock absorbing mechanism; of a hood member at one end of the yoke, adapted to receive the shank of a coupler, said hood member being defined by spaced top and bottom walls and spaced side walls, said side walls being provided with alined coupler key receiving slots; and a supporting ledge at the outer end of the hood forwardly of the slots of said side walls, and offset upwardly with respect to the main portion of said bottom wall, said bottom wall having an upstanding guide rib having the upper edge thereof flush with the upper surface of said ledge.

2. A yoke having a hooded end adapted to receive the shank of a coupler, said hooded end having a bottom wall and a ledge at the outer end portion of the hood disposed in a plane above said bottom wall, said bottom wall having an upstanding guide rib, the upper edge of which is flush with the upper face of the ledge, said ledge and rib forming supporting guide means for the coupler shank, said ledge having a depending rib extending lengthwise of the yoke and having the lower edge flush with the under surface of the bottom wall and forming with said bottom wall a supporting and guiding means cooperating with supporting means of the car underframe structure.

3. In a yoke, the combination with spaced, longitudinally extending top and bottom arms connected by an integral section at one end; of a hood at the other end, having spaced top and bottom walls and spaced side walls, said top wall forming a continuation of the top arm and being shorter than the side walls, said side walls being provided with aligned coupler key receiving openings, said bottom wall being a continuation of said bottom arm and having the outer end portion thereof offset with respect to the main portion and disposed in a plane above said main portion to provide a supporting shelf for the coupler shank, said shelf projecting forwardly beyond said side walls; a supporting rib for said coupler shank upstanding from said main portion of the bottom wall, extending rearwardly from said shelf and having the top edge in alignment with the upper surface of the shelf; and depending rib members on said offset shelf extending forwardly from the main portion of said bottom wall and having the lower edge faces thereof in alignment with the under surface of said bottom wall.

4. A yoke having a hooded end adapted to receive the shank of a coupler, said hooded end having a bottom wall and a ledge at the outer end portion of the hood disposed above said bottom wall, said bottom wall having a raised portion extending rearwardly from the ledge, the upper edge of said raised portion being in alignment with the upper face of the ledge, said ledge having a depending enlargement extending lengthwise of the yoke and having the lower edge face thereof aligned with the under surface of said bottom wall.

5. A yoke having a hooded end adapted to receive the shank of the coupler, said hooded end having a bottom wall, the outer end portion of which is raised with respect to the remainder of said wall to provide supporting means for the coupler shank presenting a flat supporting surface, said wall having additional supporting means for the coupler shank rearwardly of said raised portion projecting from said wall and having a supporting surface in alinement with the flat supporting surface of said means, said raised wall portion having depending guide means thereon in alinement with the underneath surfaces of said remainder of the bottom wall.

6. In a yoke for railway draft riggings, including draft sills and yoke-supporting means secured to the sills, the combination with a hood member at one end of the yoke adapted to receive the shank of a coupler member, said hood member having a bottom wall provided with a raised ledge portion at one end thereof adapted to support the coupler shank; additional supporting means for the coupler shank on said wall inwardly of said hood; and depending means at the front end portion of said hood having a bottom surface portion in alinement with the underneath surface of said bottom wall and co-operating with the yoke-supporting means of the draft sills to guide and support the yoke.

In witness that I claim the foregoing I have hereunto subscribed my name this 13th day of February, 1929.

CHARLES E. DATH.