G. T. JOHNSON.

CAST METAL YOKE FOR RAILWAY DRAFT MECHANISM.

APPLICATION FILED JAN. 23, 1915.

1,153,793. Patented Sept. 14, 1915.

FIG. 1.

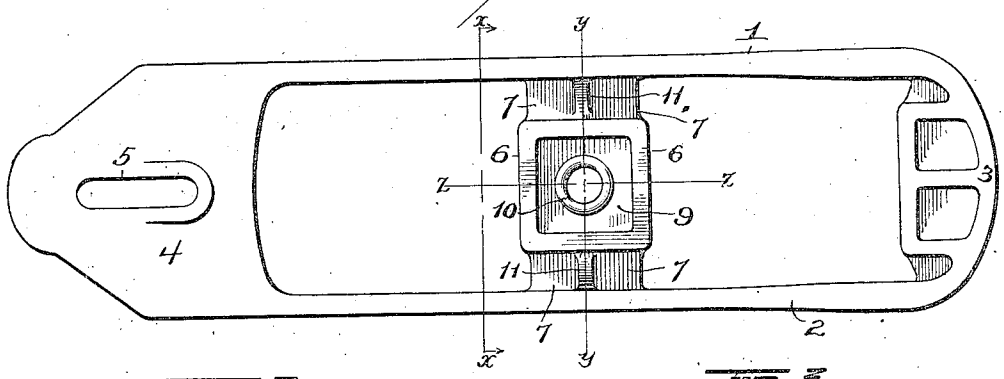


FIG. 2.

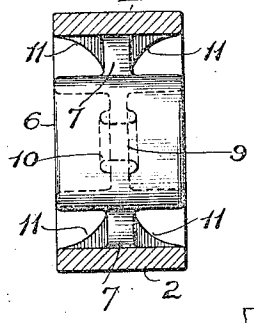


FIG. 3.

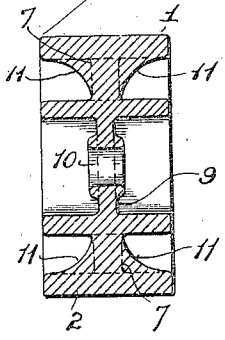


FIG. 4.

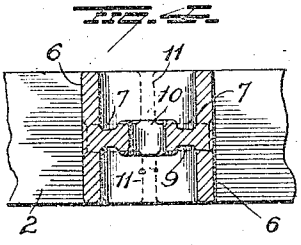
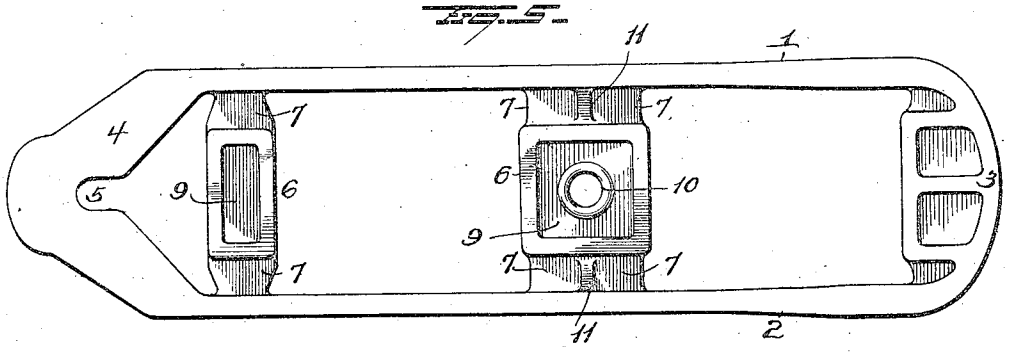


FIG. 5.



WITNESSES

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CAST-METAL YOKE FOR RAILWAY DRAFT MECHANISM.

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Application filed January 23, 1915. Serial No. 3,965.

To all whom it may concern:

Be it known that I, GEORGE T. JOHNSON, a citizen of the United States, and a resident of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Cast-Metal Yokes for Railway Draft Mechanism; 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.

My invention relates to an improvement in cast metal tandem yokes for railway draft mechanism, the object being to secure maximum strength and extended bearing faces with a minimum weight of metal, and without the use of cores.

In the accompanying drawings, Figure 1 is a view in side elevation of a tandem yoke embodying my invention; Fig. 2 is a view in vertical section on the line *x*—*x* of Fig. 1; Fig. 3 is a view in section on the line *y*—*y* of Fig. 1; Fig. 4 is a view in horizontal section on the line *z*—*z* of Fig. 1, and Fig. 5 is a view of a modified form.

The yoke is a casting preferably of steel, its body being of U-shape and provided intermediate its ends with an abutment for the engagement with the rear follower of the front spring and front follower of the rear spring of a tandem spring draft gear, and also provided at its forward end with a hood to receive the butt-end of a standard coupling.

The parallel top and bottom members 1 and 2 of the yoke are connected by a curved rear end 3, and merge at their front ends into a hood 4, preferably cast integral with said top and bottom members and adapted to receive the butt end of a standard coupling, the side members of the hood being provided with oblong slots 5 to receive a flat or oval key which passes through the butt end of the coupling for locking the latter to the yoke.

The yoke is provided centrally with an integral cross stop or abutment, composed of the webs 7, located centrally with relation to the top and bottom members, and extending in the direction of the length of the latter, and the intermediate skeleton abutment 6, which is approximately square, and is reinforced centrally by the partition 9 integral with the four sides of the abutment and extending lengthwise of the yoke. This partition may be provided with a central opening 10 as shown, the wall of which is preferably enlarged as shown in Fig. 4, adjacent said opening but this however is optional. The abutment presents a solid closed face at the front and rear, and at the top and bottom and is open at the sides, the four right angle surfaces being approximately as wide as the width of the top and bottom members of the yoke. The webs 7 connecting the abutment with the two members of the yoke are strengthened by the centrally located rib or fillets 11, which unite the margins of the top and bottom members of the yoke with the webs. This abutment forms a stop for the rear follower of the front spring or friction device used in connection with the gear, and for the front follower of the rear spring or other device.

In the construction shown in Fig. 5, I have provided an abutment similar to the one described adjacent the front end of the yoke. This abutment is engaged by the front follower, and also may be engaged by the rear end of the shank of the coupling, and acts as a filler between the rear end of the shank and the front follower.

By making the abutment hollow or of skeleton form as shown, and supporting it approximately at its center and in the direction of the stresses to which it is subjected, I secure a yoke with enlarged bearing surfaces and of strength sufficient to withstand any and all stresses to which it may be subjected in actual use, with a minimum amount of metal, and also provide a form of casting which can be made without using cores.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent is:—

1. In a draft yoke the combination of top and bottom members, and a four sided skeleton abutment located intermediate said members and connected to the latter by webs extending in the direction of the length of said member, the said members, abutment and webs being integral.

2. In a draft yoke the combination of top and bottom members, and a four sided hollow abutment located intermediate said upper and lower members, the said abut-

ment having an integral centrally located partition extending in the direction of the length of the yoke, and connected to the latter by webs, the latter also extending in the direction of the length of the yoke.

3. In a draft yoke, the combination of top and bottom members, a four sided hollow abutment located intermediate said members, centrally located webs connecting the abutment and top and bottom members, and extending lengthwise of said members, and transverse fillets uniting the side margins of the top and bottom members with said webs, all of said parts being cast integral.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

GEORGE T. JOHNSON.

Witnesses:
GEO. M. MURPHY,
GEORGE F. KRAUSS.