H. AIKEN.

TRUCK SIDE FRAME.

APPLICATION FILED FEB. 19, 1908.

900,463. Patented Oct. 6, 1908.

Fig. 1.

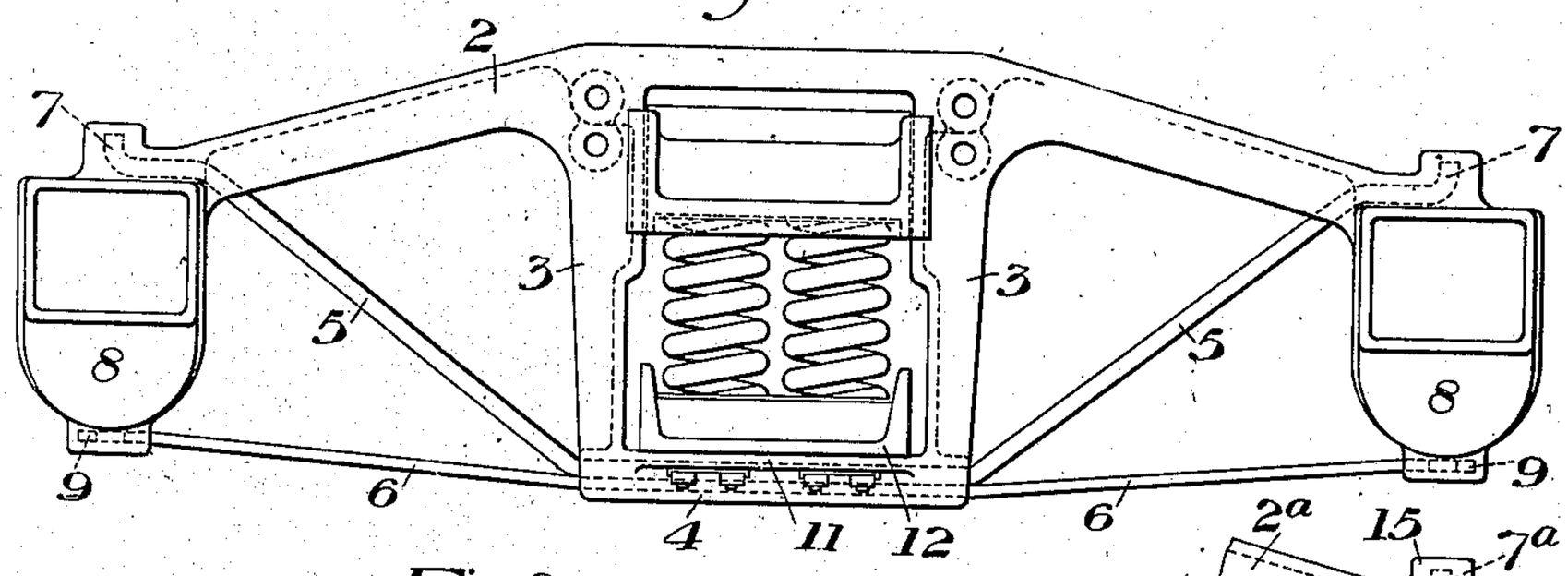


Fig. 2.

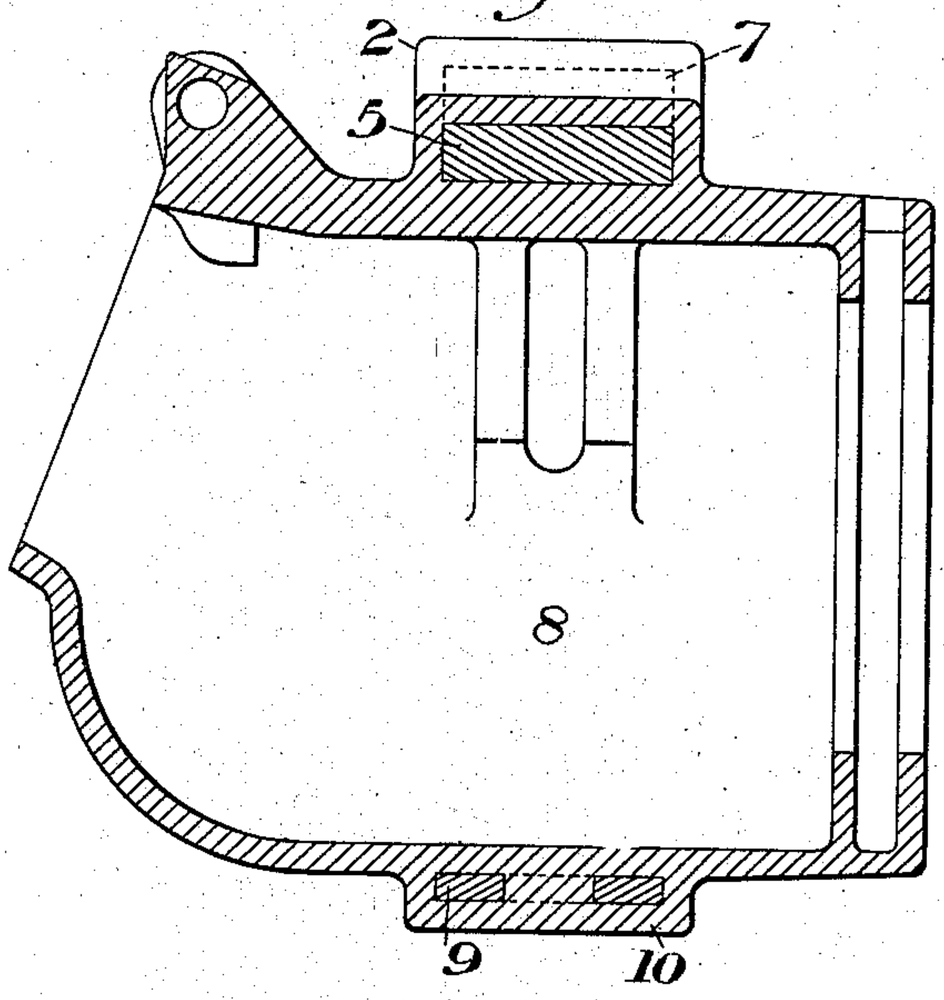
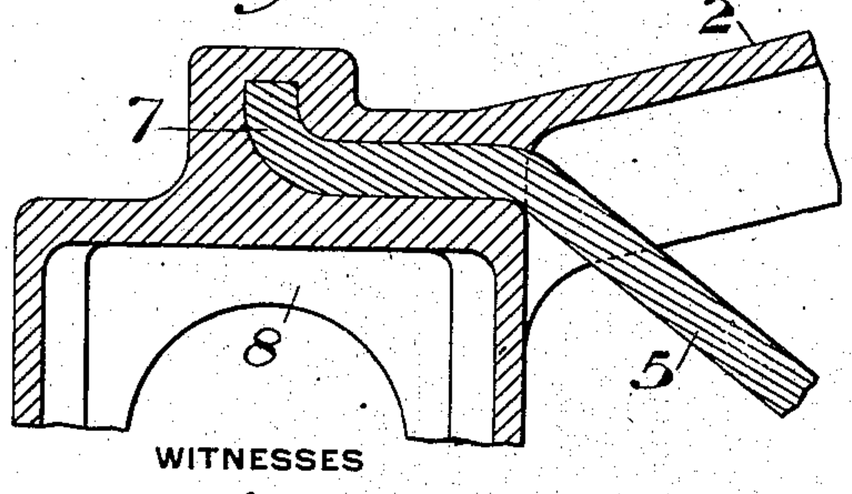


Fig. 3.



WITNESSES

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R. H. Balderson

Fig. 5.

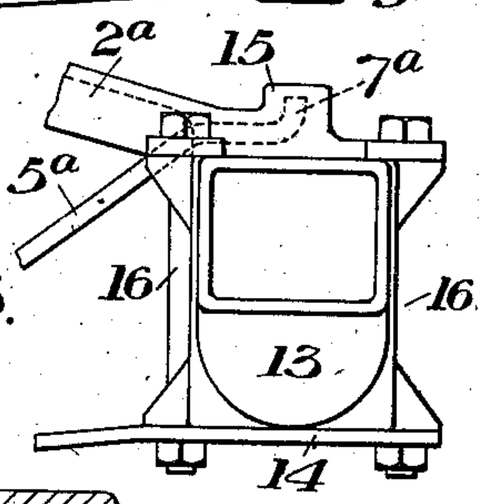
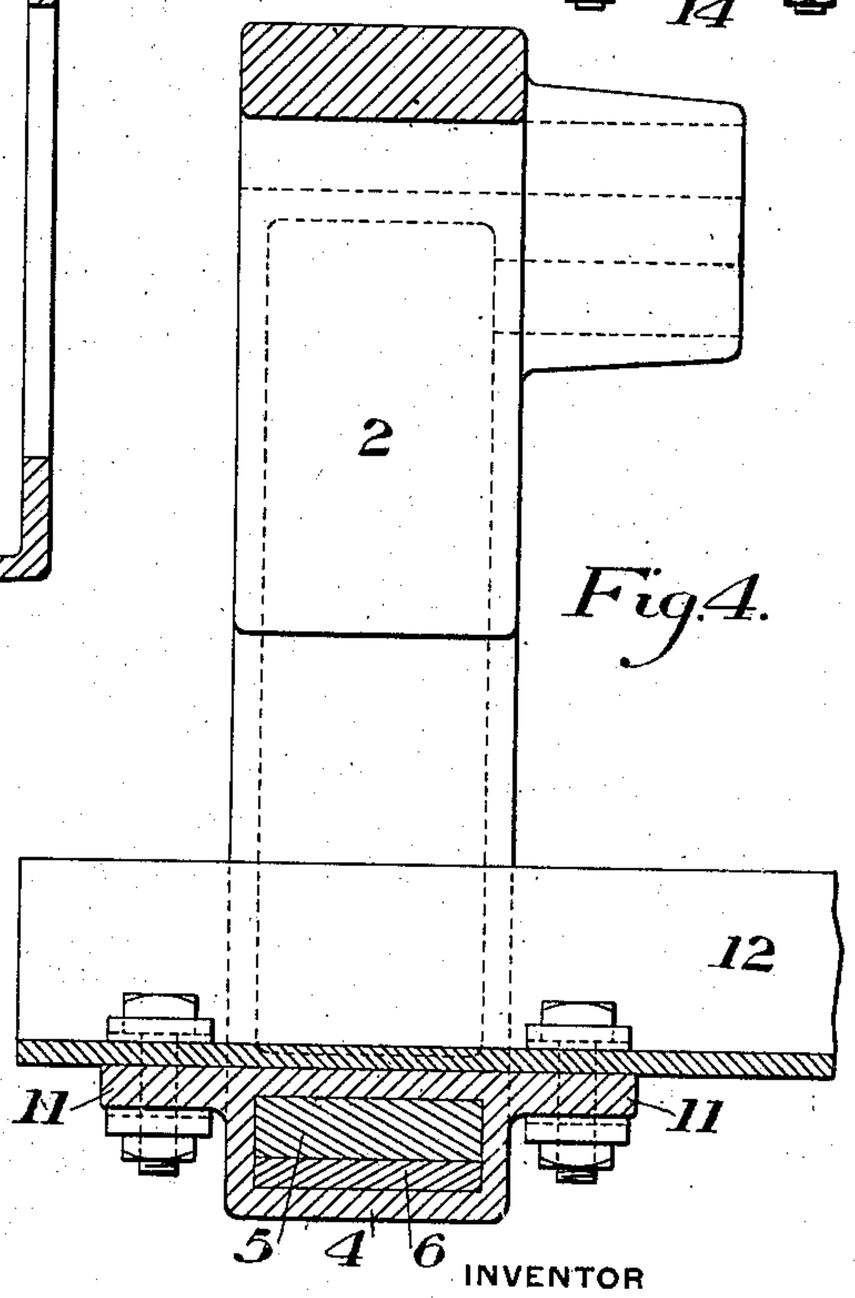


Fig. 4.



INVENTOR

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UNITED STATES PATENT OFFICE.

HENRY AIKEN, OF PITTSBURG, PENNSYLVANIA.

TRUCK SIDE FRAME.

No. 900,463. Specification of Letters Patent. Patented Oct. 6, 1908.

Application filed February 19, 1908. Serial No. 416,652.

To all whom it may concern:

Be it known that I, HENRY AIKEN, of Pittsburg, in the county of Allegheny, State of Pennsylvania, have invented a new and useful Truck Side Frame, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation, showing one form of my improved side frame; Fig. 2 is an enlarged cross section of the journal box portion; Fig. 3 is an enlarged longitudinal detail section of the top portion of the journal box; Fig. 4 is a central cross section of the frame; and Fig. 5 is a side elevation of another form.

My invention relates to the class of truck side frames, and is designed to provide a simple, cheap and strong structure, in which a wrought or rolled metal tension member is secured to a cast compression member without the use of rivets or bolts. It is also designed to provide journal boxes formed as a part of the same casting with the compression member.

In the drawings, 2 represents the cast steel compression member of a truck side frame, forming the upper arch bar or equivalent thereof. This member is preferably provided with central frame extension members 3 3, connected by the lower member 4, which is preferably cast about the central portion of the lower arch bar 5 and the tie bar 6.

The end portions of the cast member 2 are flowed or cast about and inclose the bent or hooked end portions of the lower arch bar or tension member, and the journal boxes 8 8, are preferably formed of cast steel and are cast integral with the compression member and the parts 3 and 4. The ends 9 of the tie bar 6 are preferably perforated or recessed and are inclosed within the cast metal 10 at the lower side of the journal box portion.

In the form shown, the lower frame member 4 is provided with integral sidewise extending flanges 11, to which are bolted the spring planks 12.

In forming the side frame, suitable molds are placed about the end portions and middle portions of the lower arch bar and tie bar, which are of rolled or wrought metal, and these molds are suitably formed to simultaneously shape the compression member, central frame member and journal boxes, and secure these parts to the end portions of the lower arch bar and the tie bar by the act of casting.

In Fig. 5, I show a form similar to the other figures except that the journal box 13 is of the ordinary type, and is secured between the end portion 14 of the lower tie bar and the end portion 15 of the compression member which is cast about the hooked end portion 7^a of the tension member. In this case, the ordinary securing bolts are employed as shown at 16, and the end portion of the compression member may be shaped to conform to any desirable type of box. By using this form, the side frame may be adapted to different roads calling for different types of journal boxes.

The advantages of my invention will be apparent to those skilled in the art, since a very strong rigid construction is afforded, which does away with the use of bolts, rivets or other securing means. The tension members are of wrought metal, which gives high tensile strength, while the compression member is of cast steel, which presents great resistance to compression. In the act of forming the cast member, the other parts of the frame are secured and strengthened, while the cast part is given its desired shape. The center cast portion is formed as an integral part of the upper arch bar, and at the same time is secured to the intermediate parts of the lower arch bar and tie bar.

The form and arrangement of the side frame may be varied. The central frame casting may be formed separately from the upper arch bar or frame member, the casting securing the ends of the arch bars may be formed separate from the journal boxes, if desired, so that separate journal boxes may be applied, and many other changes may be made without departing from my invention.

I claim:

1. A truck side frame having a side frame member with its end portions inclosed by another side frame member cast about the parts, substantially as described.

2. A truck side frame having an upper cast frame member with its ends formed of metal flowed about a lower frame member, substantially as described.

3. A truck side frame having a compres-

sion member formed as a steel casting and a tension member consisting of wrought metal, the steel casting being flowed about the other member to secure the parts together, substantially as described.

4. A truck side frame having a cast upper arch bar member with an intermediate integral downward extension and a lower wrought metal bar having its ends secured to the cast arch bar member, substantially as described.

5. A truck side frame having a cast compression member with an intermediate frame extension formed of metal flowed about the lower arch bar and the tie bar, substantially as described.

6. A truck side frame having a side frame compression member consisting of a steel casting with the journal boxes cast integrally therewith, and a wrought metal tension member secured to the compression member, substantially as described.

7. A truck side frame having a side frame member consisting of a steel casting with the journal boxes cast integrally therewith, and a lower wrought metal member having its ends secured by casting portions of the upper member to them, substantially as described.

8. A truck side frame having a side frame member consisting of a steel casting with the journal boxes cast integrally therewith, and a lower tie bar having its ends secured by flowing the metal of the journal box portions about them, substantially as described.

9. A truck side frame having a cast upper arch bar member with an integral intermediate downward extension flowed about the intermediate portion of a lower wrought metal member, substantially as described.

10. A truck side frame having a cast upper arch bar member with an integral intermediate downward extension flowed about the intermediate portion of a lower wrought metal member, the cast extension having side flanges for securing the spring plank, substantially as described.

11. A truck side frame having an upper cast frame member and a lower wrought metal member having bent or hooked ends secured to the upper cast member by flowing the metal about these bent ends, substantially as described.

12. A truck side frame having a cast compression member, a wrought metal lower arch bar, and a wrought metal tie bar, the end portions of the cast member being flowed about the end portions of the wrought arch bar member, substantially as described.

In testimony whereof, I have hereunto set my hand.

HENRY AIKEN.

Witnesses:
GEO. B. BLEMING,
JOHN MILLER.