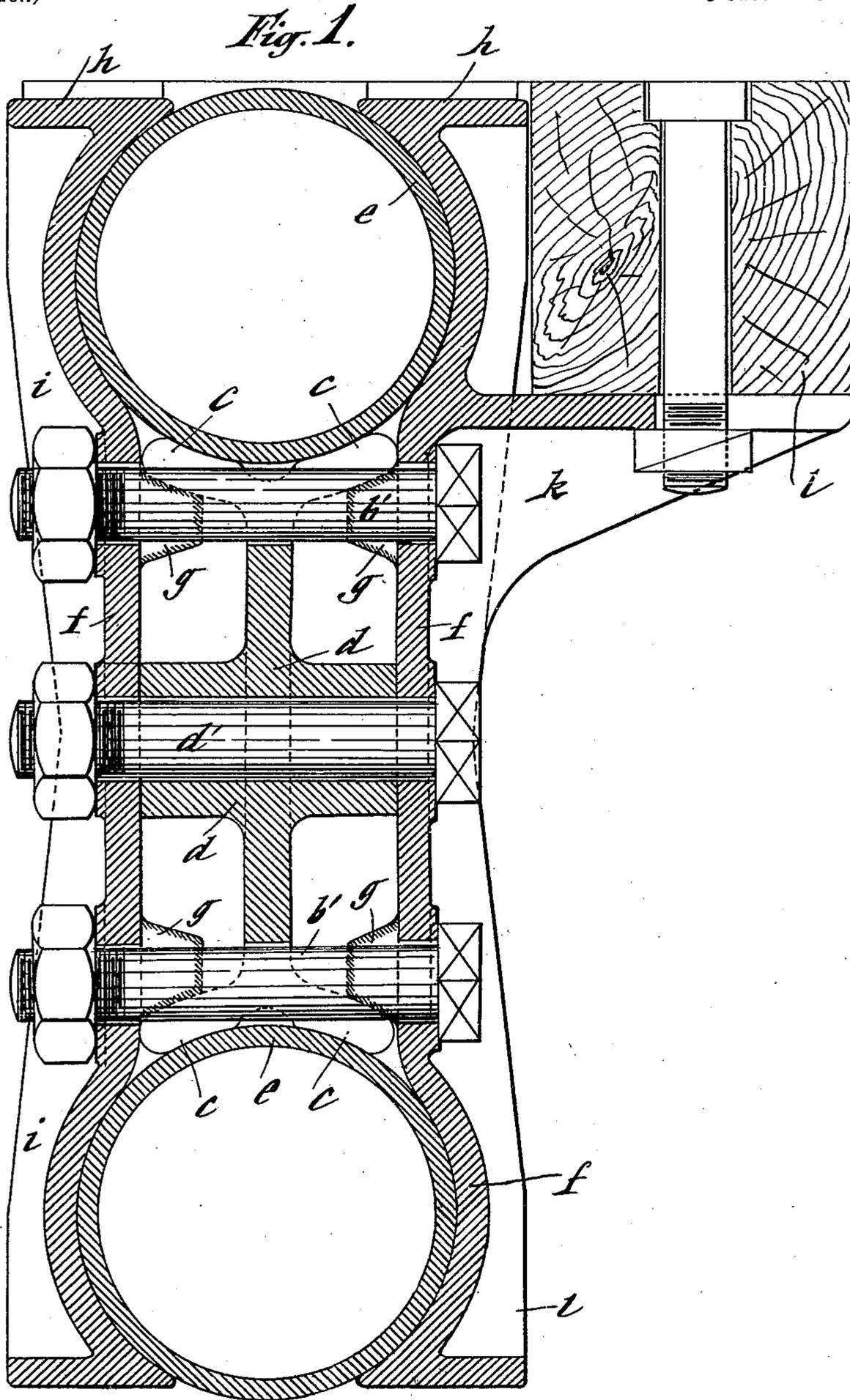


S. RIFFLART.
RAILWAY VEHICLE FRAME OR THE LIKE.

(Application filed Dec. 12, 1901.)

(No Model.)

3 Sheets—Sheet 1.



WITNESSES

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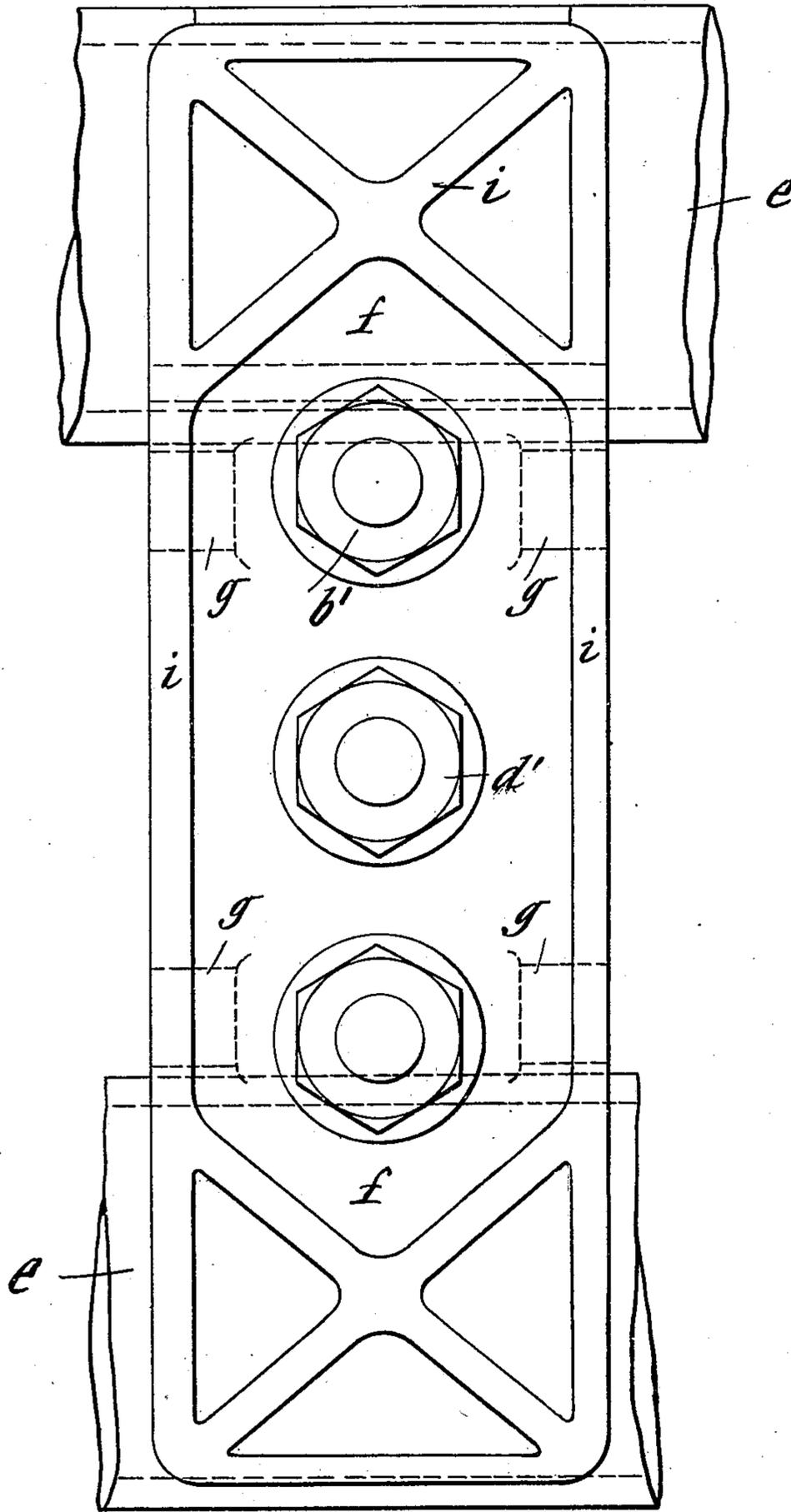
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Fig. 2.



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Fig. 3.

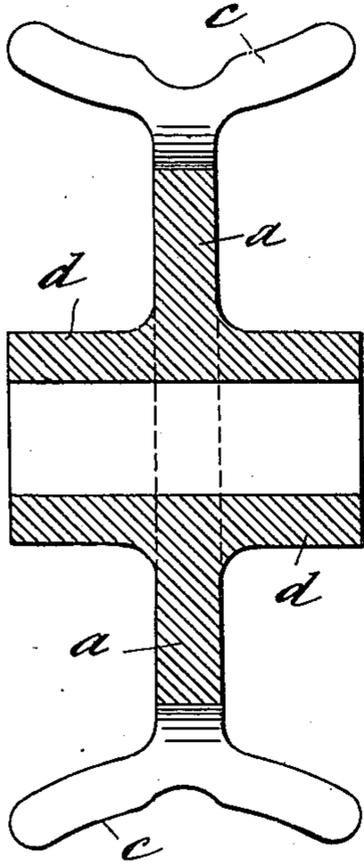


Fig. 4.

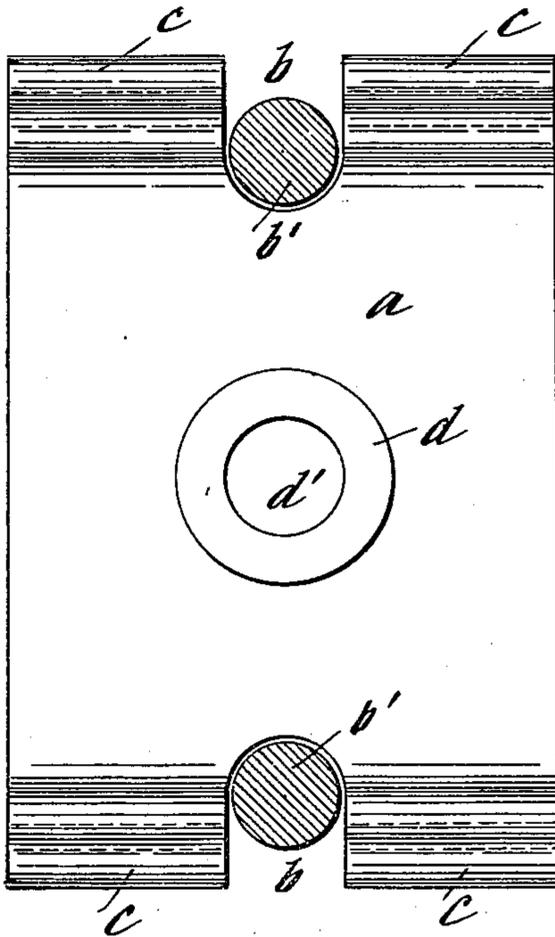
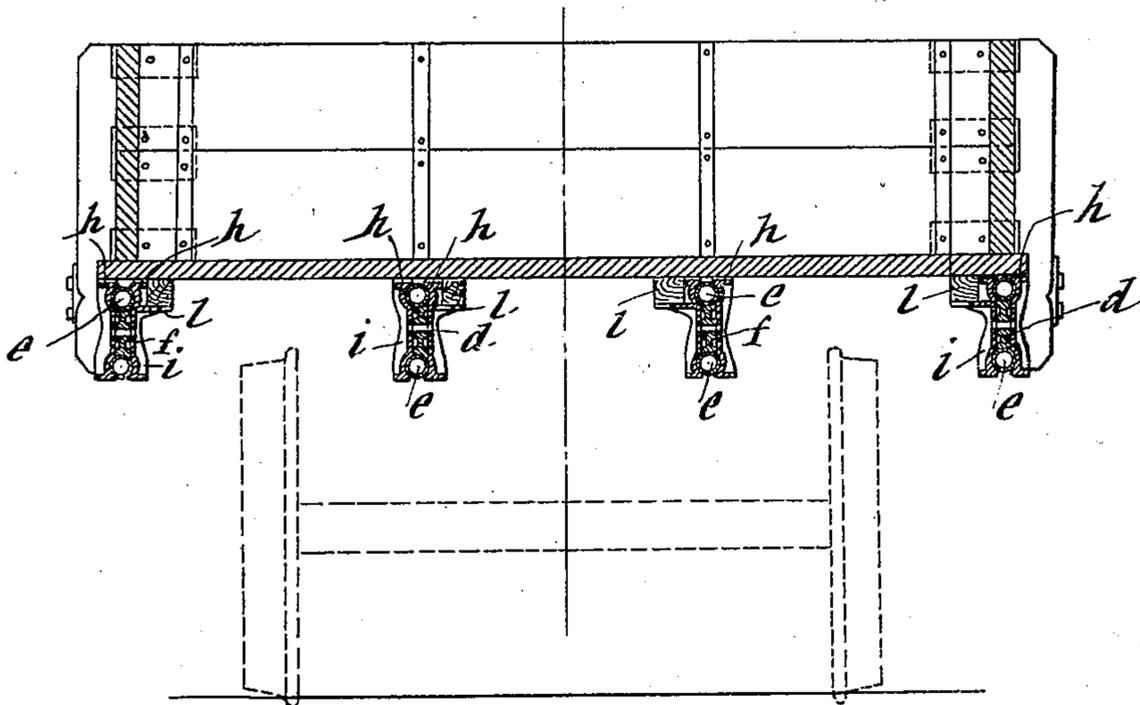


Fig. 5.



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UNITED STATES PATENT OFFICE.

SCIPION RIFFLART, OF BRUSSELS, BELGIUM, ASSIGNOR TO SOCIÉTÉ ANONYME
DES WAGONS TUBULAIRES, OF BRUSSELS, BELGIUM.

RAILWAY-VEHICLE FRAME OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 698,736, dated April 29, 1902.

Application filed December 12, 1901. Serial No. 85,677. (No model.)

To all whom it may concern:

Be it known that I, SCIPION RIFFLART, engineer, a subject of the King of Belgium, residing at 21 Rue Grétry, Brussels, in the Kingdom of Belgium, have invented new and useful Improvements in or Relating to Railway-Vehicle Frames and the Like, (for which patents have been filed in Belgium, dated May 20, 1901, No. 156,618; in France, dated May 22, 1901, number of certificate 299,630; in Great Britain, dated May 25, 1901, number of certificate 10,837; in Spain, dated May 27, 1901; in Hungary, dated May 28, 1901, number of certificate 7,779; in Russia, dated May 29 / June 1, 1901, number of certificate 14,231; in Germany, dated June 18, 1901, No. 6,126, and in Austria, dated July 8, 1901, No. S.423,) of which the following is a full, clear, and exact description.

My invention consists in the features hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings the improved construction is represented in Figure 1 in vertical section. Fig. 2 is a side elevation. Fig. 3 is an elevation, partly in section, of the middle member. Fig. 4 is a side elevation of the latter, and Fig. 5 is a section through a railway-carriage embodying the device.

The support or middle member *a*, in the form of a double-headed rail is provided with curved heads or flanges *c* and with a strong hub *d* bored through in the center. The flanges *c* are recessed or notched at the side, thus forming notches *b*, and serve as a support for the two tubes *e*. The latter are connected with the middle member *a* by two side pieces *f*, of the same width as the middle member, and embrace the latter laterally by means of their extremities, which are curved according to the diameter of the tubes and support the lateral flanges of the middle member by means of four inward projections *g*, extending from the inner faces of each of the side pieces. Each side piece has three perforations in its central vertical axis, the central opening coinciding with that of the hub *d*, while the other two openings correspond with the notches or recesses *b* in the middle member for the reception of clamping-bolts *d' b' b'*. Thus it is only necessary to tighten the screw-bolts in order to obtain a rigid construction, as owing to this arrangement the centers of the side pieces *f*, as well as the seats or heads

c of the middle member, are by the wedging action of the projections *g* tightly pressed against the circumferences of the tubes *e*, and at the same time the middle member and the side pieces are securely united together. It is to be noted that the supporting curved ends of the side pieces strongly secure the tubes against separation, while leaving the tubes *e* partly uncovered, and that they provide lateral flanges *h*, the upper faces of which are in line with the circumference of the tubes and form a flat seat for attachment of the bottom of the carriage. These flanges are integral with cross-ribs *i* upon the curved ends of the side pieces and with other ribs on the edges of the side pieces, while for some side pieces they are laterally extended, so as to form a support *k* for a lateral beam *l*.

It will now be seen that when a strain is exerted upon the upper tube it is transmitted at once directly by side pieces and the middle member to the other tube in such manner that the whole device offers a uniform resistance. This effect of the entire distribution, as in the case of a solid or single part, is due to the fact that the combined constituents—*i. e.*, the side pieces as well as the middle member—are each made of a single part, and, further, that upon each of them strain is directly exerted without the aid of the bolts, which do not take up any of the strain, but simply act as absolutely free connecting parts in the construction.

I claim—

1. In combination with the upper and lower frame members, a support or strut interposed between the same, and clamping side pieces embracing said frame members, with means for securing said plates together and to said support or strut, substantially as described.

2. In combination, with the upper and lower tubular frame members, an interposed strut or support having seats against which said frame members rest, side clamping-plates embracing said frame members, and bolts passing through said strut and connecting said plates, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

SCIPION RIFFLART.

Witnesses:

AUG. GOERISSEN,
GREGORY PHELAN.