No. 701,920. Patented June 10, 1902.

G. C. MURRAY.

BOLSTER FOR RAILWAY CARS.

(Application filed Mar. 8, 1902.)

(No Model.)

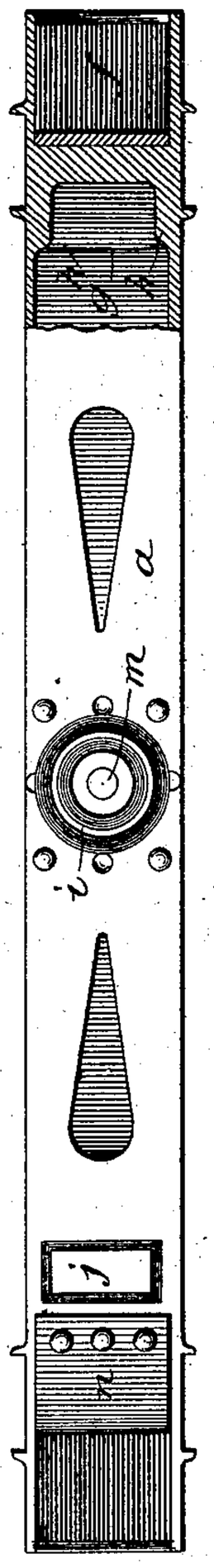

Fig. 1.

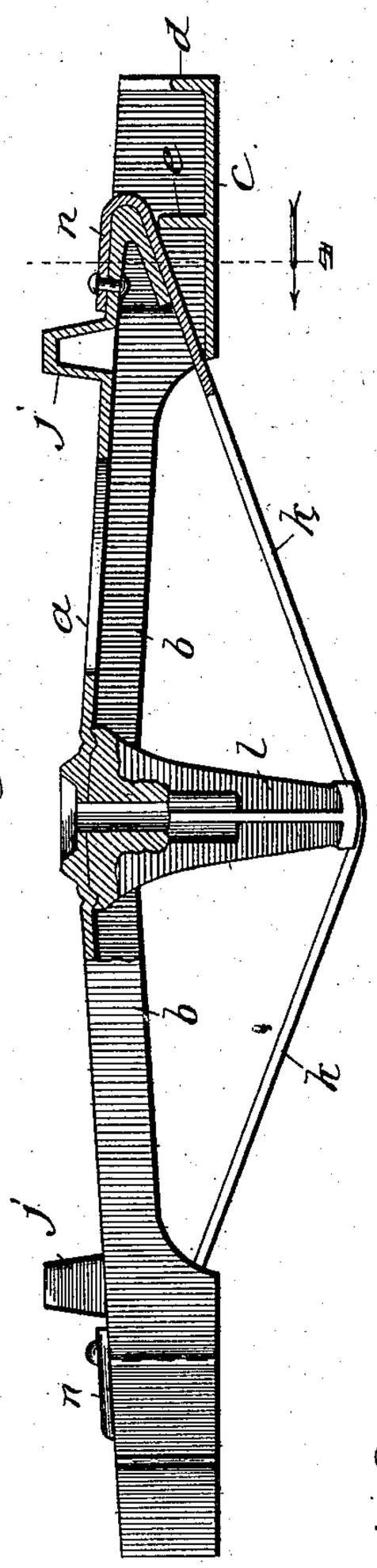

Fig. 2.

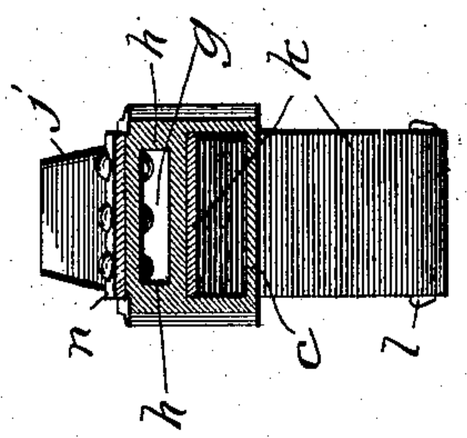

Fig. 4.

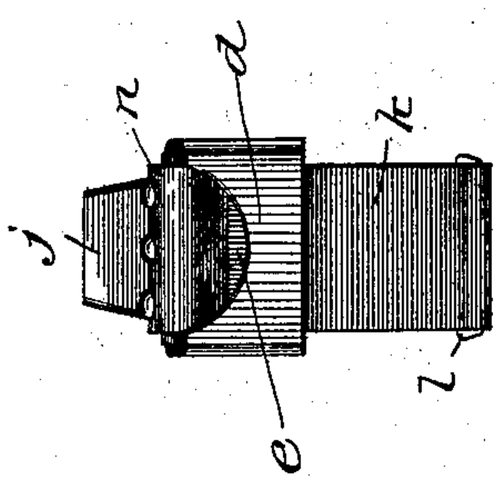

Fig. 3.

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UNITED STATES PATENT OFFICE.

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BOLSTER FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 701,920, dated June 10, 1902.

Application filed March 8, 1902. Serial No. 97,259. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. MURRAY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bolsters for Railway-Cars, of which the following is a specification.

This invention relates to that class of bolsters known as "truck-bolsters," to be used in connection with the trucks of railway-cars, and particularly to the construction and connection of the different members which act to make up the same.

The principal object of the invention is to provide a simple, economical, and efficient bolster for car-trucks.

A further object of the invention is to provide a simple, economical, and efficient truck-bolster made in two or more parts—compression and tension members—joined together at or near their end portions and with an interposed strut in such a manner as to greatly economize the material forming the structure and the efficiency thereof.

Further objects of the invention will appear from an examination of the drawings and the following description and claims.

The invention consists principally in a bolster in which there is combined a compression member provided with box-shaped ends open at the top, a tension member passed through the box-shaped end and around the end of the top portion, and an interposed strut.

The invention consists, further, in a car-bolster in which there is combined a compression member formed of cast metal with box-like ends open for a portion of the top at the extreme end thereof and returned backwardly in a V-shaped manner to strengthen the box at such point, a compression member formed of plate metal passed through the box around and up over the strengthening end of the compression member, and an interposed strut.

The invention consists, further, and finally, in the features, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a bolster constructed in accordance with these improvements, partially broken away at one end, looking at it from above; Fig. 2, a side elevation shown partly in section; Fig. 3, an end view of the same, and Fig. 4 a cross-sectional view taken on line 4 of Fig. 2 looking in the direction of the arrow.

In the art to which this invention relates it is well known that it has long been the desire of manufacturers and users of car-bolsters to provide one which will be simple to construct and contain a minimum amount of metal to resist the maximum stress and strains. The principal object of this invention, therefore, is to provide such a car-bolster.

In constructing a car-bolster in accordance with these improvements I provide a main portion or compression member formed of a web portion *a*, perforated at one or more points and having integral side flanges *b* at each lateral edge thereof and extending the entire length of the bolster. The bolster is preferably made of cast metal, such as cast-steel, malleable in its nature, and each end is preferably provided with box-shaped portions, consisting of a bottom web portion *c*, connecting the ends of the side flanges of the compression member together, end portions *d*, and transverse strengthening-ribs *e*, all formed in one integral structure. This box-shaped portion is opened partially at its end and at its top portion, as shown at *f* in Fig. 1. At the inner end of this opening there is a transverse strengthening-fillet formed of a return-bend portion *g* and extra thickening flanges *h* at each side thereof, which act to strengthen the part at this particular point and enable the efficient assembling of the other parts, as hereinafter set forth. This compression member is provided with the usual center bearing *i* and side bearings *j*, both of which may be integrally cast thereon or separately attached thereto, as circumstances may suggest or necessity render expedient.

To provide for the proper construction of the bolster, a tension member *k* is provided, passed around an interposed strut *l*, which contains a perforation *m*, in which the usual king-bolt is inserted, thence outwardly and upwardly and bent around the strengthened end portions of the compression member, as shown at *n* in Figs. 1 and 2. By this construction and arrangement of parts it will be seen that the truss is of the minimum length,

so that I am enabled to use the minimum amount of material to resist the stress and strains, while obtaining all the efficiency of the usual bolster. An inspection of the drawings will further show that at the particular point where the association or connection of the compression and tension members takes place unusual solidity and integrity is given to the construction, all of which will be understood and appreciated by those skilled in in the art.

I claim—

1. In a bolster of the class described, the combination of a compression member provided with box-shaped ends open at the top, a tension member passed through the box-shaped end and around the end of the top portion, and an interposed strut, substantially as described.

2. In a bolster of the class described, the combination of a compression member formed of cast metal with box-like ends open for a portion of the top at the extreme end thereof and returned downwardly and backwardly in a V-shaped manner to strengthen the box at such point, a compression member formed of plate metal passed through the box around and up over the return-bends of the compression member, and an interposed strut, substantially as described.

3. In mechanisms of the class described, the combination of a compression member provided with a box-shaped end with return-bends, a tension member of less length than the length of the compression member passed through the box-shaped portion and around the return-bend ends of the bolster, substantially as described.

4. In mechanisms of the class described, the combination of a compression member formed of a central longitudinal web portion, laterally-integral flanges thereon extending beyond the ends of the web portion, a tension member passed around and above the ends of the web of the compression portion and secured thereto, and an interposed strut, substantially as described.

5. In mechanisms of the class described, the combination of a compression member formed of a longitudinal central web portion, integral lateral flanges extending downwardly and longitudinally thereof and beyond the ends of the web portion and connected together at their bottom and extreme end portions, a tension member of plate metal passed through the spaces at the ends of the compression member upwardly and around the ends of the web portion thereof to which it is secured, and an interposed strut, substantially as described.

6. In mechanisms of the class described, the combination of a compression member formed of a central web portion, integral flanges extending downwardly from the lateral edges longitudinally thereof and beyond the ends of the web portion and joined together at the bottom and end portions thereof in one integral casting and provided with an integral strengthening return-bend flanged fillet where the ends of the web connect with the box-shaped ends, a tension member formed of plate metal passed through the box-shaped ends upwardly and around the return-bend fillets of the web and to which it is secured, and an interposed strut, substantially as described.

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