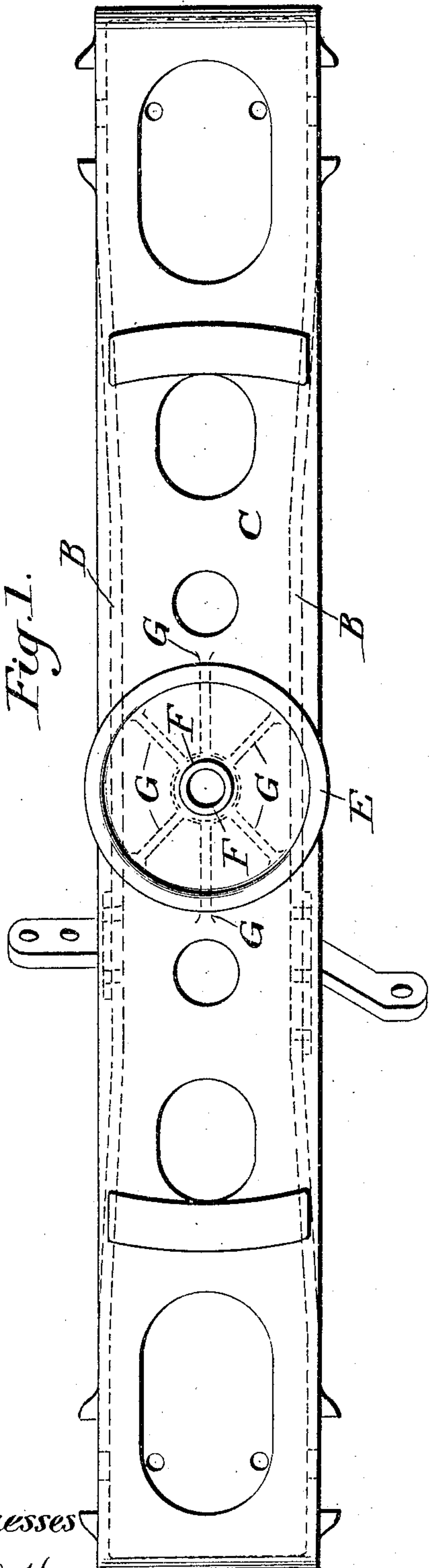


No. 775,559.

PATENTED NOV. 22, 1904.

G. G. FLOYD.
CAR TRUCK BOLSTER.
APPLICATION FILED MAY 18, 1904.

NO MODEL.



Witnesses

J. E. Hutchinson Jr.
W. Beale Williams

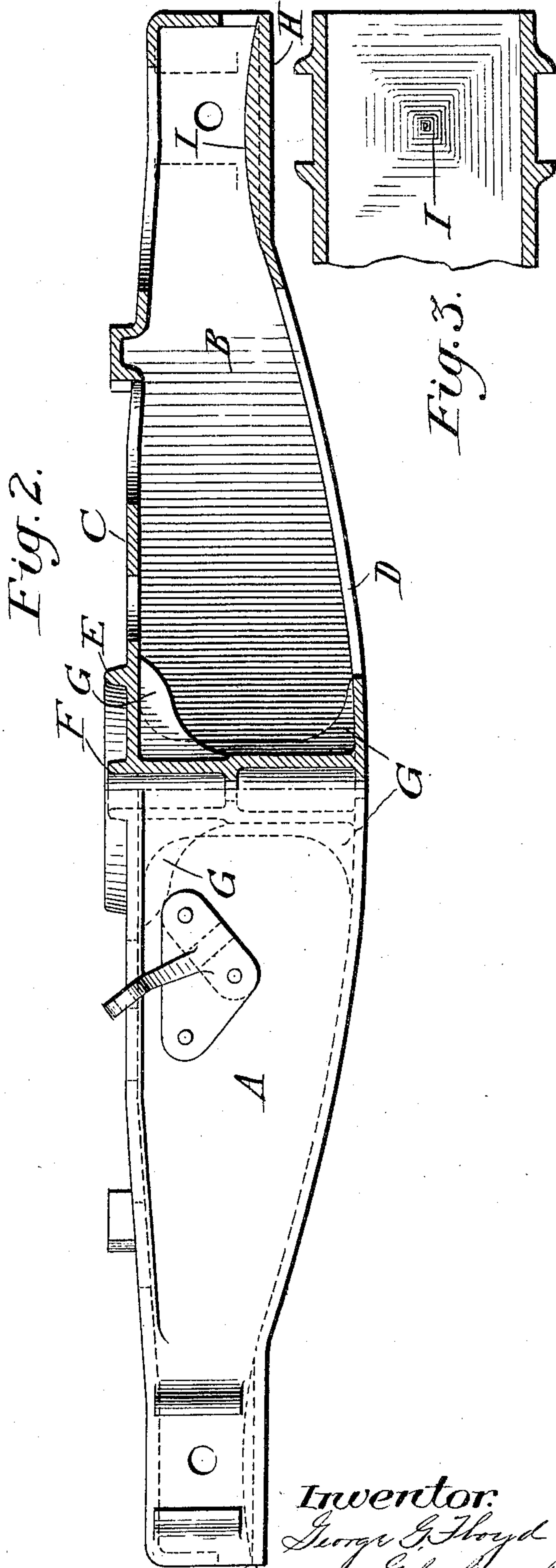


Fig. 3.

Inventor

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UNITED STATES PATENT OFFICE.

GEORGE G. FLOYD, OF ST. LOUIS, MISSOURI, ASSIGNOR TO AMERICAN STEEL FOUNDRIES, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

CAR-TRUCK BOLSTER.

SPECIFICATION forming part of Letters Patent No. 775,559, dated November 22, 1904.

Application filed May 18, 1904. Serial No. 208,581. (No model.)

To all whom it may concern:

Be it known that I, GEORGE G. FLOYD, a citizen of the United States, residing in the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Car-Truck Bolsters; 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 ap-
 10 pertains to make and use the same.

My invention relates to car-truck bolsters, and has for its object to provide a cast-steel bolster combining the elements of strength, rigidity, and lightness requisite to meet the
 15 conditions of modern car practice, and to that end comprises an integral bolster structure in which the center bearing and king-post are reinforced by integral wings or brackets uniting said parts with the webs and in which the
 20 spring-seats at the bolster ends are formed with increasing thickness of metal toward their centers to obviate the inherent tendency of the metal forming said spring-seats to "check" during the casting operation and
 25 also to add to the strength and rigidity of the bolster at the spring-seats, where the weight is concentrated.

In the drawings, Figure 1 is a plan view of my improved car-truck bolster. Fig. 2 is an elevation thereof, partly in section; and Fig.
 30 3 is a plan view of one of the reinforced spring-seats.

Referring to the drawings, A indicates the body of the bolster, which is preferably formed
 35 of cast-steel as an integral structure, having the form of a trussed box-girder having upper and lower webs C D, united by sides B B. In order to reduce the weight of the bolster and economize in the amount of metal forming the same, the webs C and D are formed
 40 with a series of openings extending longitudinally thereof.

Centrally disposed with respect of the bolster are the center bearing E and the king-
 45 post F, which are usually employed in this general type of truck-bolsters. With the enormous increase in the loads carried by the cars under the modern railroading practice it has been found that the great weight imposed

upon the center bearing and the king-post and
 the heavy shocks delivered upon the said parts by the car-body tend to weaken the structure to such an extent that the center bearing and the king-post are sheared or broken away from the bolster-body, thereby wrecking the
 55 bolster, disabling the car, and greatly endangering the train of which said car forms a part. In order to avoid this difficulty and to render the bolster safe under all conditions of operation, the king-post F and the center bearing
 60 E are reinforced by wings or brackets G G, formed as integral parts of the bolster-casting and uniting the king-post with the webs C and D, the upper wings G underlying and supporting the center bearing E.
 65

Much difficulty has been experienced heretofore with the spring-seats at the bolster ends both in the casting operation and under the shocks and stresses imposed upon said spring-seats when the car is operating under load, as
 70 said seats, formed in the thin webs of the bolster ends, were found to be either inherently defective and weak, owing to the checking of the metal forming the seats during the casting operation, or were liable to fracture under sud-
 75 den shock. To avoid both of these difficulties, the spring-seats I I, which are also formed as integral parts of the bolster-casting, are cast so as to increase in thickness toward the cen-
 80 ters from their sides and ends, as illustrated in Figs. 2 and 3.

It will thus be seen that the characteristic advantages of the bolster, as described, are exceptional lightness in weight and economy
 85 of material and great structural strength of the bolster as an entity, due to the mode of reinforcing the portions of the structure which are subjected to heavy strains and shocks.

Having thus described my invention, what I claim is—
 90

1. A cast-steel car-truck bolster having upper and lower webs and sides, constituting a box-girder, and provided with a center bearing and king-post and radial wings extending from the king-post to the upper and lower
 95 webs; substantially as described.

2. A cast-steel car-truck bolster having spring-seats at its ends, said spring-seats in-

creasing in thickness toward their centers;
substantially as described.

3. A cast-steel car-truck bolster having
spring-seats at its ends, said spring-seats in-
5 creasing in thickness toward their centers
from their sides and ends; substantially as de-
scribed.

In testimony whereof I affix my signature in
presence of two witnesses.

GEORGE G. FLOYD.

Witnesses:

C. F. PLESSE, Jr.,

H. S. MILLER.