

No. 777,721.

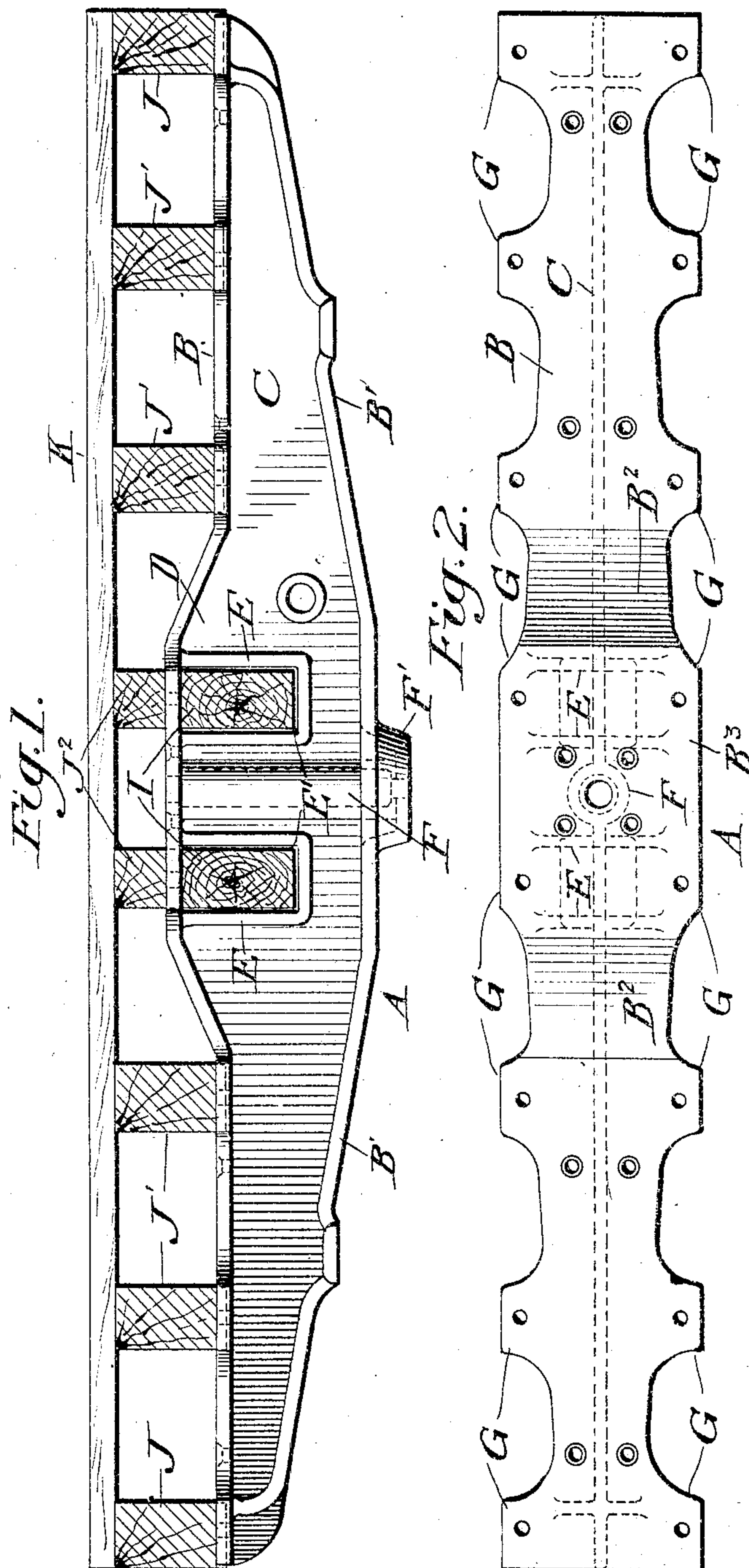
PATENTED DEC. 20, 1904.

G. G. FLOYD.  
BODY BOLSTER.

APPLICATION FILED MAY 18, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:  
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W. Beale Williams

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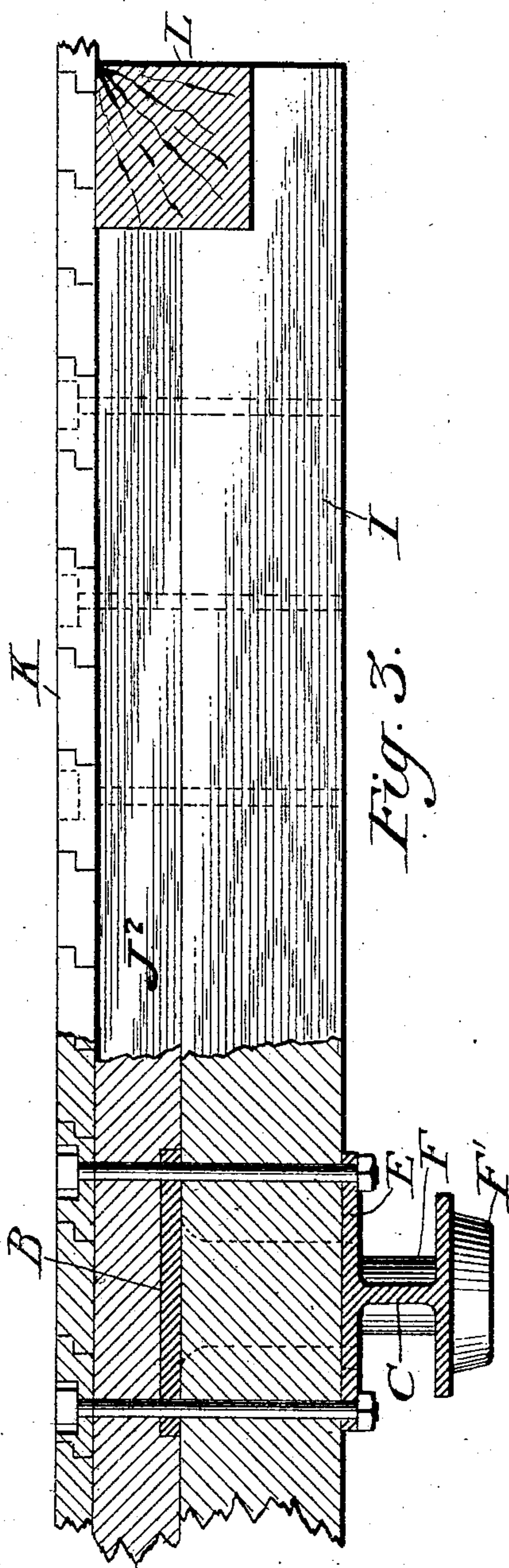
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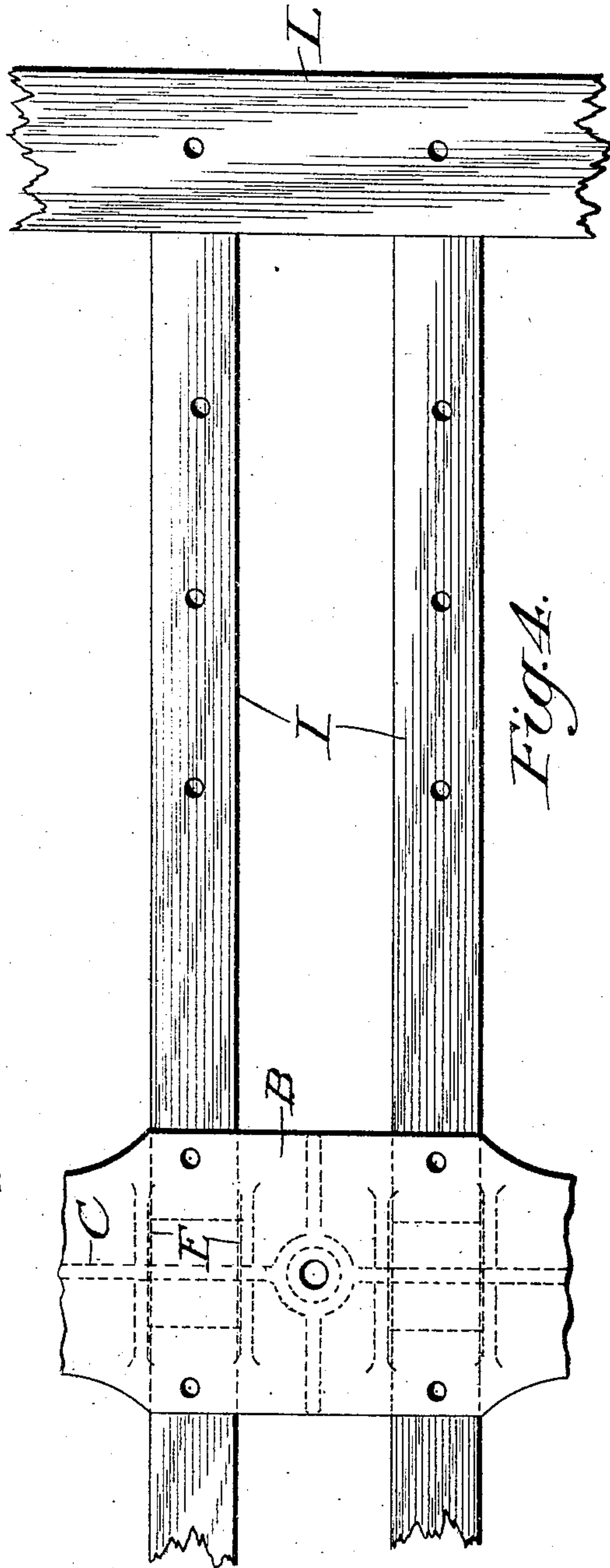
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NO MODEL

2 SHEETS—SHEET 2.



*Fig. 3.*



*Fig. 4.*

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# UNITED STATES PATENT OFFICE.

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## BODY-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 777,721, dated December 20, 1904.

Application filed May 18, 1904. Serial No. 208,582.

*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  
5 certain new and useful Improvements in Body-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 appertains to make and use  
10 the same.

My invention has for its object to provide a new and improved car-body bolster in which special provision is made for supporting the draft-sills and the body-sills without weakening the bolster at any point; and to this end the invention comprises a cast-steel body-bolster, preferably in the form of a trussed I-beam, having an upwardly-extending reinforcing-swell at its middle portion to accom-  
15 modate the draft-sill sockets and having lateral extensions of the top flange to provide bearing-plates of substantially uniform width for the body-sills.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation, partly in section, of the underframing of a car, showing the mode of applying my improved body-bolster. Fig. 2 is a plan view of said body-bolster. Fig. 3 is a central section taken at right angles to Fig. 1. Fig. 4 is a plan view of the parts shown in Fig. 3.

Referring to the drawings, A represents a body-bolster for railway-cars, preferably  
35 formed as a cast-steel trussed I-beam, having an upper flange B, a lower flange B', and a connecting-web C. The upper flange B is provided with lateral extensions G G, which afford bearings of substantially uniform width  
40 for the body-sills J, J', and J<sup>2</sup>.

It has been customary to pass the draft-sills through the body-bolster, and when the bolsters were formed as integral cast-steel structures the relatively large openings con-  
45 stituting the draft-sill bearings materially reduced the amount of metal in the cross-section of the bolster and correspondingly weakened said bolster at points where structural weakness was most dangerous—viz., in prox-

imity to the center bearing F' and the king-  
50 post F. In order to provide suitable bearings for the draft-sills and still preserve sufficient metal in the cross-section of the bolster at the points where said sills penetrate the same, the bolster A is reinforced by an upwardly-  
55 extending swell D in its mid-length, which extension includes the web C and the upper flange B and is defined by two inclined portions B<sup>2</sup> of said flange connecting an intermediate horizontal section B<sup>3</sup>, forming a seat for  
60 the center sills J<sup>2</sup>.

Suitable openings E' in the reinforced mid-section of said web C and flange B constitute the sockets or seats for the draft-sills I I. The sockets E' E' are reinforced at their lat-  
65 eral and lower edges by flanges E, the lower flanges lying well above the bottom flange B' of the bolster, with the web C extending between and connecting said flanges B' and E. The lower flanges E are also extended beyond  
70 the face of the web C to a distance greater than the width of the flange B', and said flanges E are of substantially the same width as the portion B<sup>3</sup> of the top flange, so that the bolts for securing the draft-sills in place may be  
75 readily passed through said flanges from below, while the bolster is in position, to permit the draft-sills to be applied or removed. It is to be noted that this mode of reinforcing the center of the bolster by the offset D and  
80 the sockets E' by the bordering flanges E materially increases the strength of the bolster against the heavy transverse stresses applied at its middle. The lateral extensions G of the upper flange B are pierced with suitable holes,  
85 by means of which the sills are secured to the bolster, and it is to be observed that as these bolts are readily accessible from below the bolster may be removed or replaced with facility without disturbing the underframing of  
90 the car-body.

Having thus described my invention, what I claim is—

1. A cast-steel body-bolster having upper and lower flange and intermediate web por-  
95 tions, said bolster being reinforced by an upward swell in its mid-length and provided with flanged sockets in said swell for the draft-

sills, the web portion extending between the flanged sockets and the lower flange.

2. A cast-steel bolster, comprising a trussed I-beam, having a reinforcing upward swell in its middle portion, and provided with draft-sill sockets in the reinforced portion thereof, said sockets having marginal flanges projecting from the web and being independent of the bottom flange of the bolster.

3. A cast-steel bolster-body, provided with a web having an upward swell midway of its length and with sockets in said swell for the draft-sills, the web extending between the sockets, and being provided with a king-bolt socket the full height of the web.

4. A cast-steel bolster comprising a trussed beam having upper and lower flange and intermediate web portions, having a reinforcing upward swell in the middle of said web portion, provided with draft-sill sockets in said reinforced portion, and lateral extensions on the upper flanges to provide bearings for the body-sills.

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

GEORGE G. FLOYD.

Witnesses:

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