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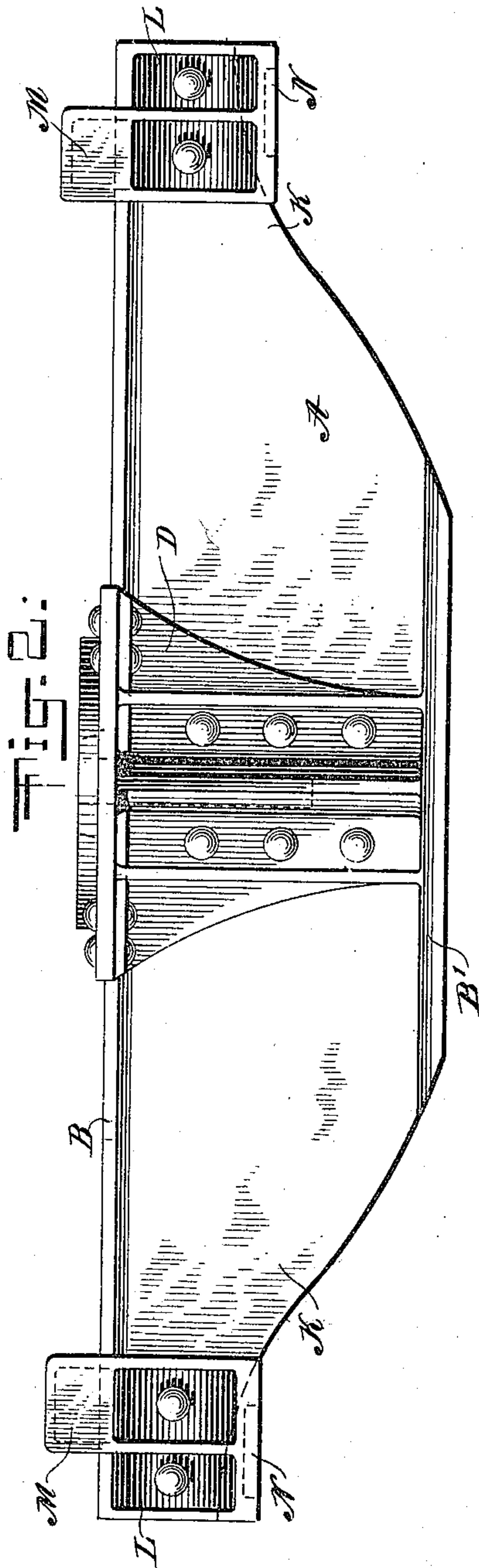
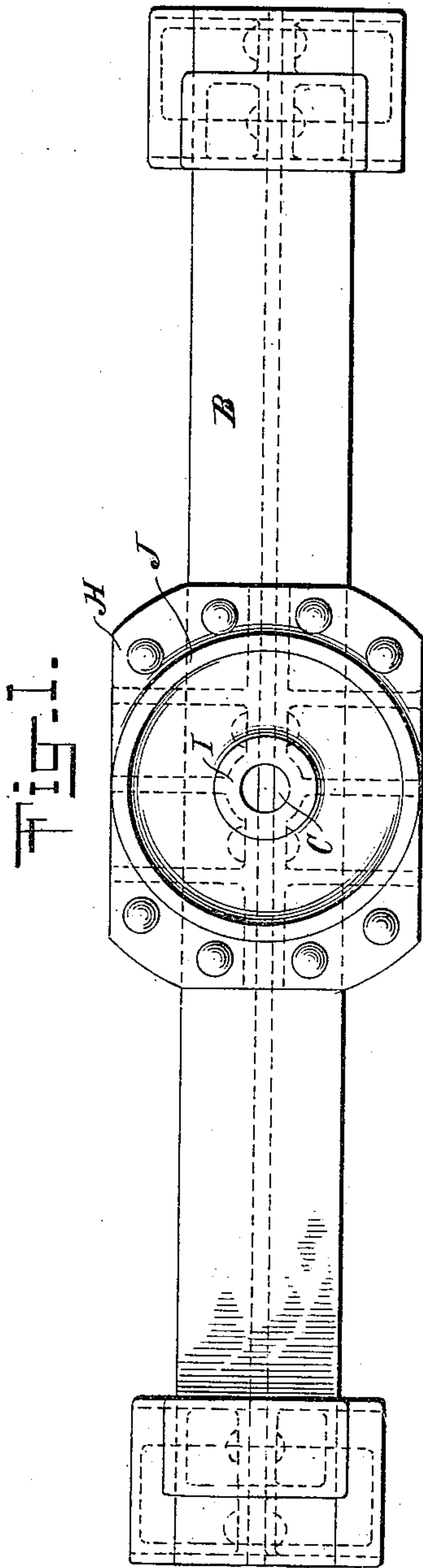
Patented Oct. 15, 1901.

C. VANDERBILT.
TRUCK BOLSTER FOR RAILWAY CARS.

(Application filed June 7, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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INVENTOR,

CORNELIUS VANDERBILT,

BY *Robt. Robt. Shaffer Robt.*
HIS ATTORNEYS

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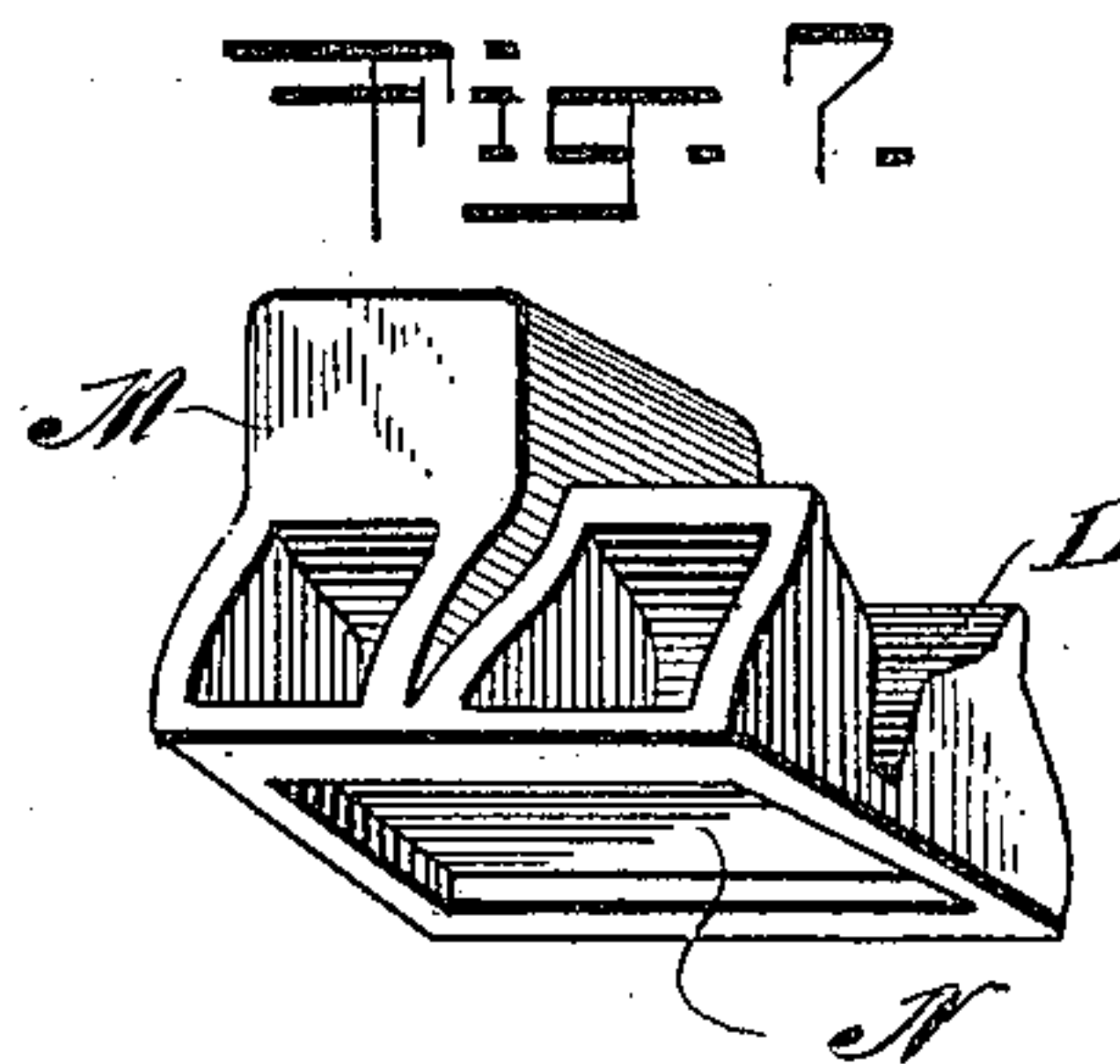
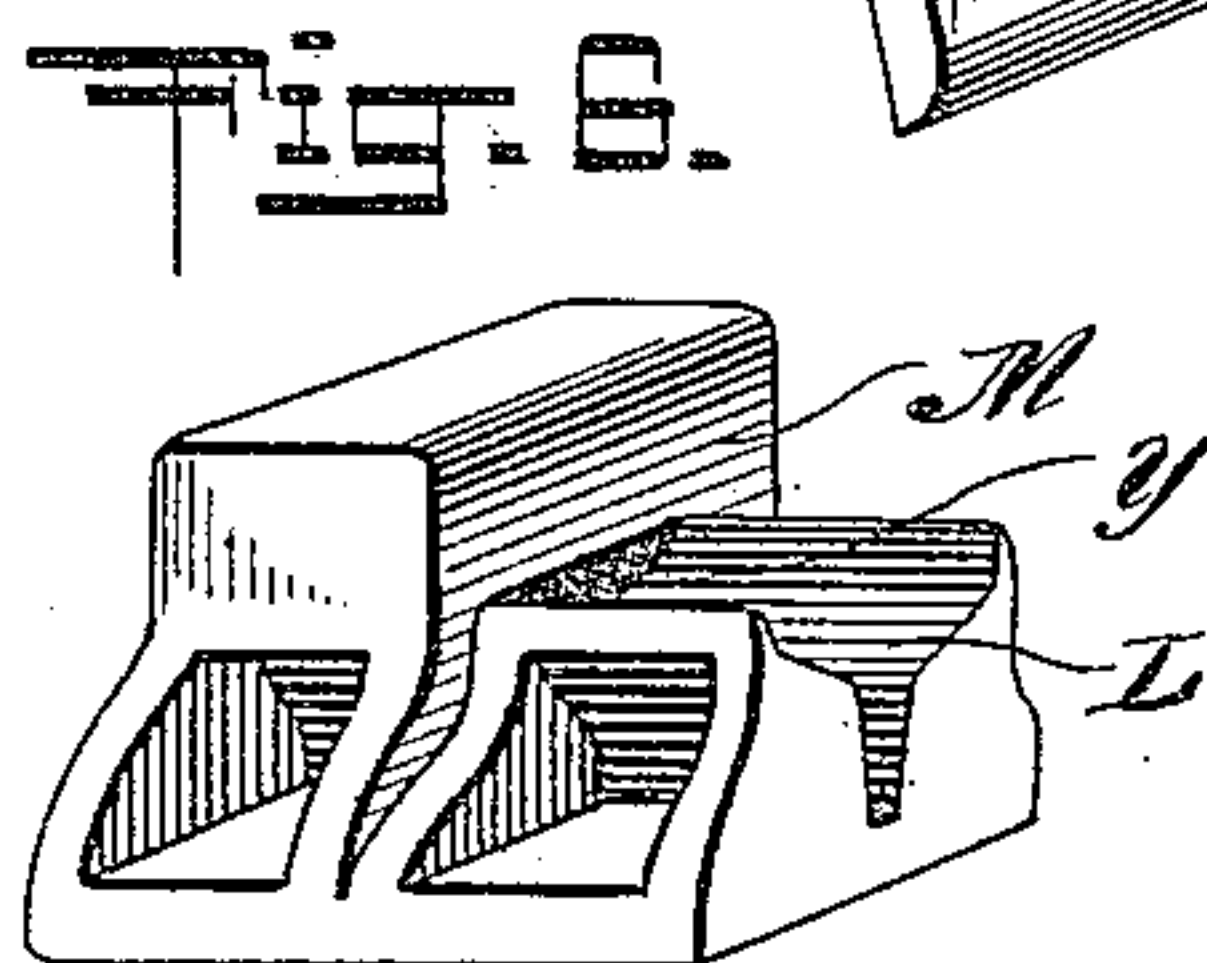
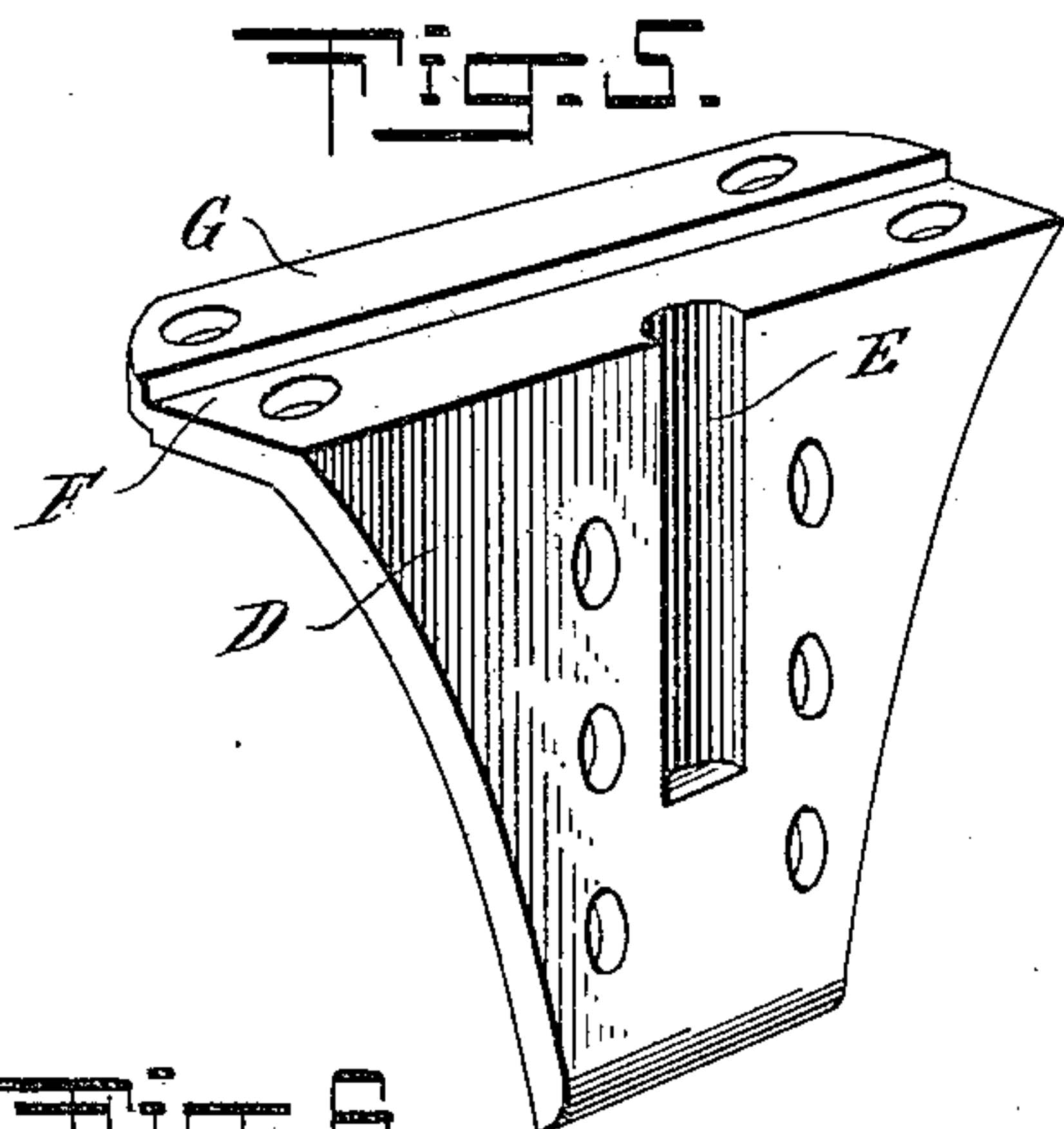
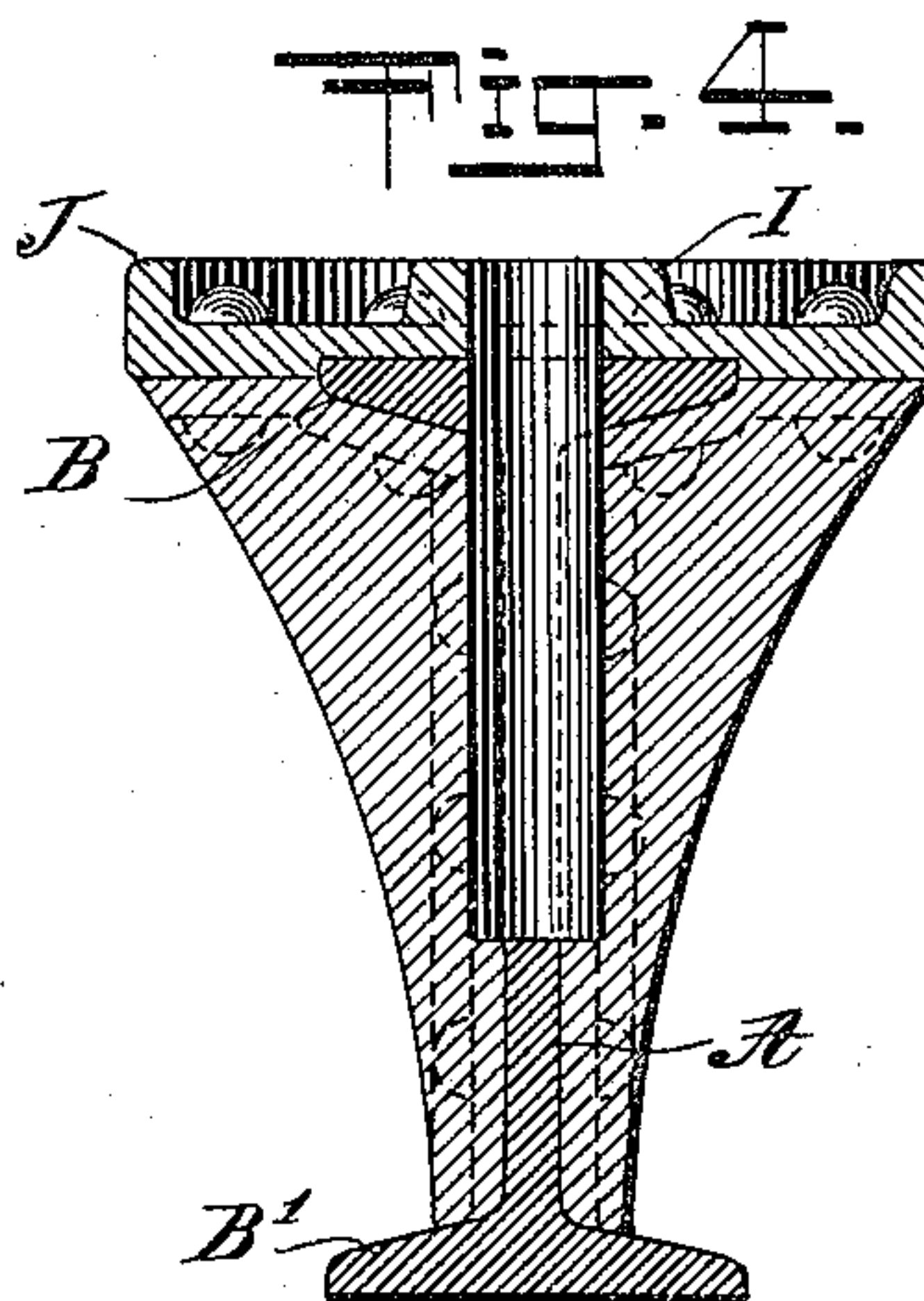
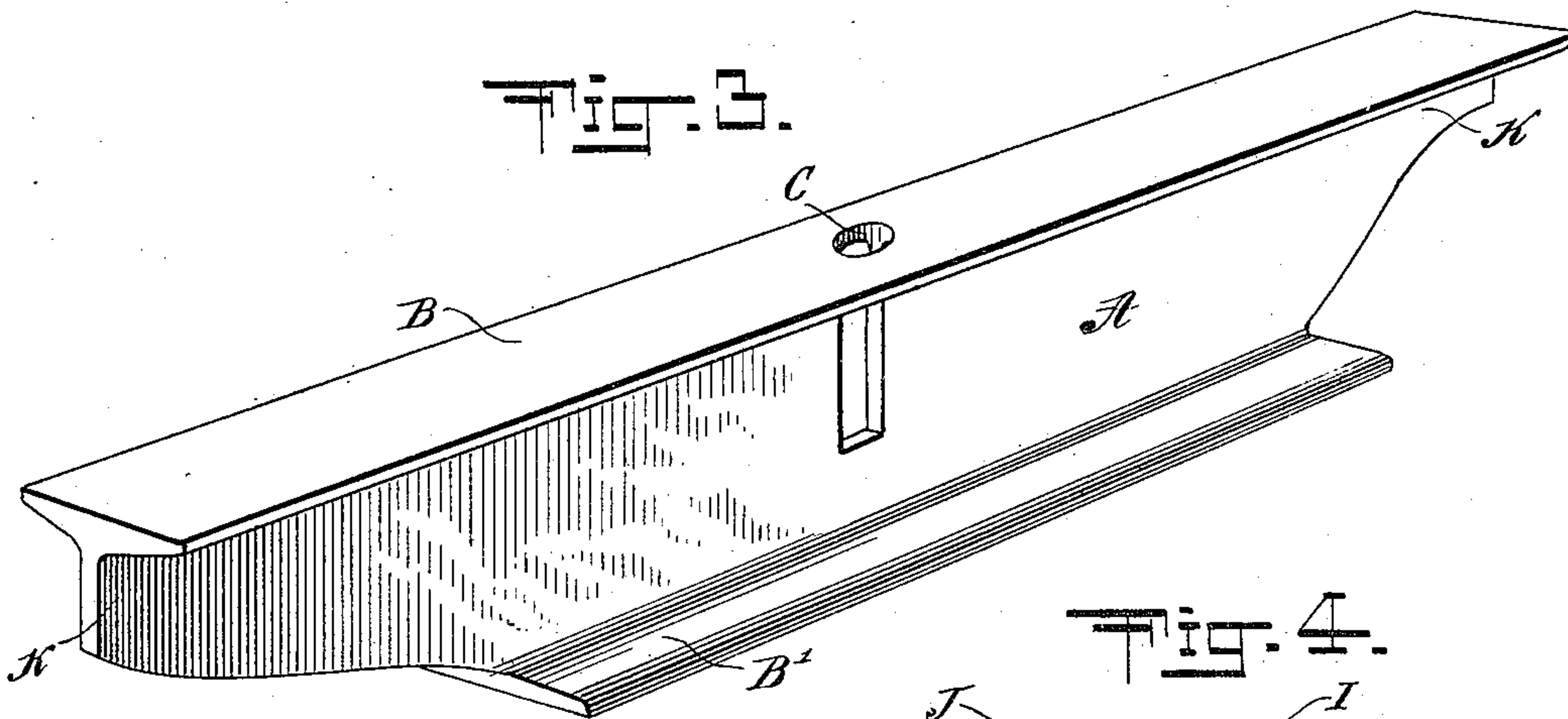
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WITNESSES:

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Wm. H. Berrigand Jr.

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CORNELIUS VANDERBILT,

BY

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UNITED STATES PATENT OFFICE.

CORNELIUS VANDERBILT, OF NEW YORK, N. Y.

TRUCK-BOLSTER FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 684,626, dated October 15, 1901.

Application filed June 7, 1901. Serial No. 63,559. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS VANDERBILT, a citizen of the United States, residing in the borough of Manhattan, in the city, county, and State of New York, (and having a post-office address at 100 Broadway, in said borough,) have invented certain new and useful Improvements in Truck-Bolsters for Railway-Cars, of which the following is a full and true description, reference being had to the accompanying drawings, showing one embodiment of my invention.

The object of my invention is to economically produce a truck-bolster of great strength and having few parts.

In the accompanying drawings like letters refer to similar parts in the several views.

Figure 1 represents a top view of a preferred form of my new truck-bolster. Fig. 2 is a side view thereof. Fig. 3 is a perspective view of the form of bolster-beam preferred. Fig. 4 is a cross-sectional view of the truck-bolster at center. Fig. 5 is a view of one of the socket-castings, and Figs. 6 and 7 are respectively top and bottom perspective views of the combined spring-seat and side bearing devised by me.

While I may employ any suitable form of bolster-beam in producing my improved truck-bolster, yet I prefer, for economic reasons and because of the great strength thereof, to use a rolled or otherwise manufactured I-beam having a web A and top and bottom flanges B and B', the web and flanges preferably being integral.

In order to provide a socket for the king-bolt when using the preferred form of bolster-beam, an opening C is formed in the upper flange B at the longitudinal center of the beam, and said opening is continued downwardly through the web of the beam for about, say, three-fifths of its height. This opening C forms a part of the socket for the king-bolt, the remainder of the socket being formed in one or more of the castings applied to the bolster-beam in the manner hereinafter indicated.

In the preferred form of my invention the socket-castings are made of two like parts adapted to closely fit and to be riveted to the opposite sides of the web A and to engage the upper and lower flanges B and B'. The preferred form of casting is shown in Fig. 5. It

consists of a body D, adapted to fit against the side of the web A of the bolster-beam, and of flanged parts F and G, the former adapted to fit underneath a flange B and the latter extending outwardly beyond said flange. Each casting has a longitudinal recess E, and when the castings are bolted or riveted to the beam the recesses E and the opening C in the web A coincide and form a socket for the king-bolt, usually extending downwardly from the body-bolster of the car. The castings are provided with strengthening-ribs, as shown, and with openings for securing the parts to the beam, in which of course similarly-disposed openings are formed. I also provide the improved truck-bolster with a center bearing, (shown in the accompanying drawings,) in which H indicates the body-plate, having an opening for the passage of the king-bolt and also having the concentric bearing-rings I and J. The said center bearing, as shown, is preferably secured to the bolster-beam by the same devices—rivets or bolts—used to secure the socket-castings to the flanges B, the outer edges of the center bearing being riveted through suitable openings to the outer flanges G of the castings. When secured to the beam, the central opening of the plate accurately registers with the opening C in the beam, and the assembled beam, plate, and castings constitute a complete kingbolt socket and give to the bolster-beam great strength midway of its ends, at which point the shocks and strains are greatest.

While the improved truck-bolster described by me may be provided at or near the ends with any of the usual forms of side bearings and spring-seats secured to the beam in the usual way, I prefer to form side bearings and spring-seats integrally, casting or otherwise forming the same, and preferably providing each integral spring-seat and side bearing with an opening extending therethrough and machined to snugly fit the ends of the bolster-beam. In order to utilize small end castings, I prefer to form the beam with reduced ends, as shown, cutting the web thereof inwardly and downwardly from the ends, leaving at each end only a web A and outwardly-extending flanges B B'.

The preferred form of combined side bearing and spring-seat is shown in Figs. 6 and 7 of the accompanying drawings. It is provided

with a T-shaped opening Y, running through the casting, and by the employment of the opening the casting is sleeved upon the reduced end of the bolster-beam and secured thereto by bolts or rivets passing through suitably-disposed holes in the casting and in the web of the beam. As shown in the drawings, the opening Y does not necessarily pass through the entire length of the casting, but may pass only through the part constituting the side bearing M, the extension therefrom, constituting the remainder of the spring-seat N, being formed with a groove having outwardly and upwardly curved parts L for fitting the web and under faces of the flanges B. I do not, however, desire to be understood as confining my invention to the employment of a combined side bearing and spring-seat. As heretofore, either of these parts may be used and may be separate, being secured to the bolster-beam in any suitable way.

The method of producing bolster-beams, consisting in diagonally cutting the same at both ends for the purpose of providing reduced ends and subsequently cutting the socket-hole midway of the beam through the upper flange and downwardly through the web, is not claimed herein, but constitutes the subject-matter of a pending application, Serial No. 63,558, filed by me on the 7th day of June, 1901.

My improved truck-bolster may be combined with any of the usual forms of trucks for railway-cars. It is, however, especially designed for use with the car-truck devised by me and shown and claimed in my pending application Serial No. 64,071, filed by me on the 11th day of June, 1901.

While I have herein shown and described one preferred embodiment of my invention, yet I do not desire to be understood as being confined thereto. Obviously modifications thereof within my invention will readily suggest themselves to skilled persons.

What I claim is—

1. In a truck-bolster for cars, a metallic bolster-beam having a downwardly-extending web portion and flanges extending outwardly from the upper edges of the web portion, with an opening formed in the beam midway of its length for the reception of a king-bolt, in combination with metallic strengthening-pieces applied to the beam and completing the socket for the king-bolt.
2. In a truck-bolster for cars, a one-piece metallic bolster-beam having a downwardly-extending web portion and outwardly-extending flanges from the upper edges of the web portion, with an opening formed in the beam midway of its length for the reception of a king-bolt, in combination with the metallic strengthening-pieces one applied to each side of the web and together completing the socket for the king-bolt.
3. In a truck-bolster for cars, a metallic bolster-beam having a downwardly-extending web portion and outwardly-extending flanges

from the upper edges of the web portion, and metallic blocks secured to the beam midway of its length and comprising a socket for a king-bolt, the said beam having a suitable opening therein to permit the passage of the king-bolt.

4. In a truck-bolster for cars, a metallic bolster-beam having a downwardly-extending web portion and outwardly-extending flanges from the upper edges of the web portion, metallic blocks secured to the sides of the beam midway of its length, and a metallic plate fitted to the upper face of the beam and having a suitable opening, the blocks and plates comprising a socket for a king-bolt, and the said beam having a suitable opening therein to permit the passage of the king-bolt.

5. In a truck-bolster for cars, a rolled metallic bolster-beam having a downwardly-extending web portion and integral outwardly-extending flanges from the upper edges of the web portion, metallic castings riveted to the top and sides of the beam midway of its length and comprising a socket for a king-bolt, and the said beam having a suitable opening therein to permit the passage of the king-bolt.

6. In a truck-bolster for cars, a rolled metallic bolster-beam provided, midway of its length, with a suitable socket for a king-bolt, in combination with suitable spring-seats secured near the opposite ends of the bolster-beam.

7. In a truck-bolster for cars, a rolled metallic bolster-beam provided, midway of its length, with a suitable socket for a king-bolt, in combination with spring-seats, each consisting of a single piece suitably recessed and fitted to the bolster-beam near each end thereof.

8. In a truck-bolster for cars, a rolled metallic bolster-beam having reduced ends and provided, midway of its length, with a suitable socket for a king-bolt, in combination with combined side bearings and spring-seats, each consisting of a single piece suitably recessed and sleeved upon the reduced ends of the metallic beam.

9. In a truck-bolster for cars, a bolster-beam provided, midway of its length, with a suitable socket for a king-bolt, in combination with combined side bearings and spring-seats, each consisting of a single piece fitted upon the bolster-beam near each end thereof.

10. A rolled metallic bolster-beam consisting of a downwardly-extending web portion and outwardly-extending flanges from the upper edges of the web portion, said beam provided, midway of its length, with a suitable socket for a king-bolt.

In witness whereof I have hereunto signed my name this 6th day of June, 1901.

CORNELIUS VANDERBILT.

In presence of—

L. F. H. BETTS,
JAMES J. COSGROVE.