(No Model.)

J. RHOADS.

FREIGHT CAR.

No. 526,261. Patented Sept. 18, 1894.

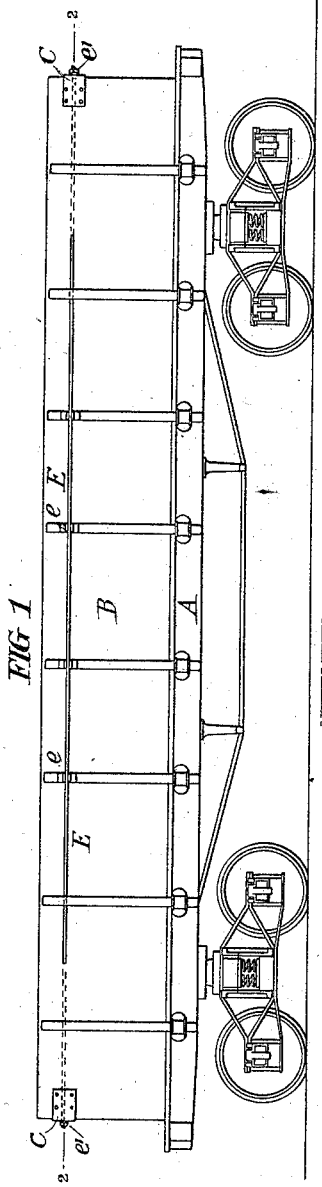

FIG 1

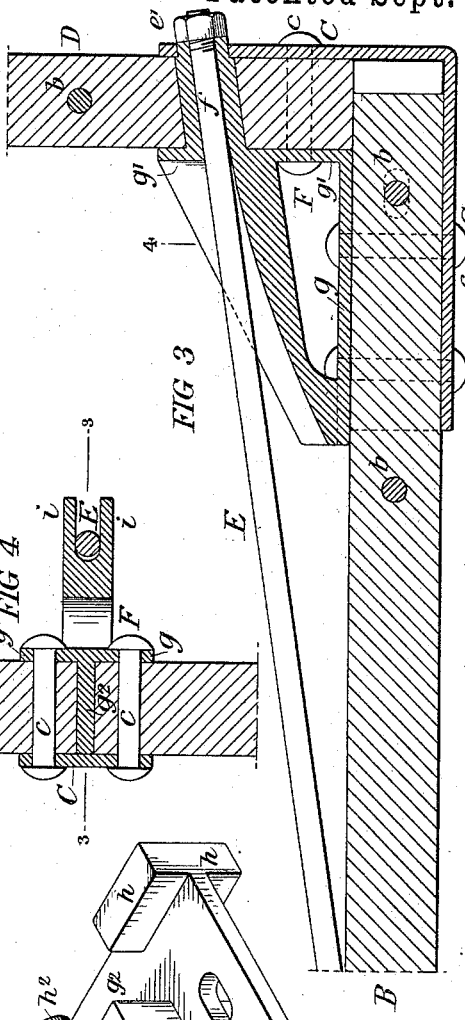

FIG 3

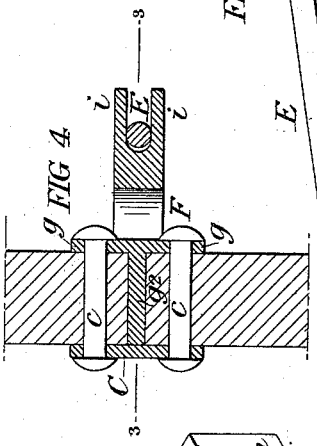

FIG 4

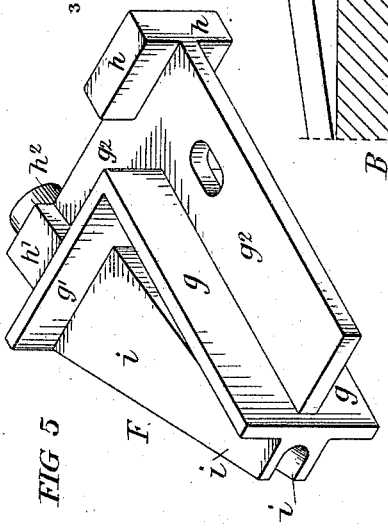

FIG 5

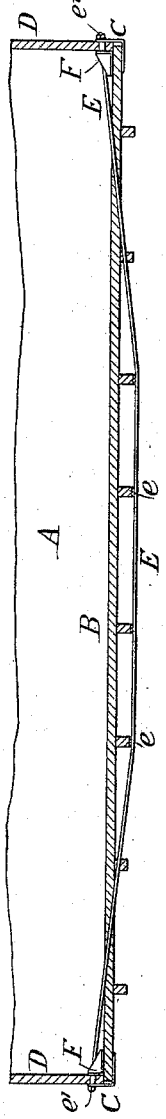

FIG 2

WITNESSES

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JOHN RHOADS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF TWO THIRDS TO JOHN F. RHOADS AND DANIEL C. RHOADS, OF SAME PLACE.

FREIGHT-CAR.

SPECIFICATION forming part of Letters Patent No. 526,261, dated September 18, 1894.

Application filed March 9, 1894. Serial No. 502,969. (No model.)

To all whom it may concern:

Be it known that I, JOHN RHOADS, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Freight-Cars, of which the following is a specification.

The object of my invention is to prevent the truss rods employed in supporting the sides of open freight cars from straining and crushing the wood work of the car. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1, is a side view of sufficient of a freight car to illustrate my invention, the details being omitted. Fig. 2, is a section on the line 2—2, Fig. 1. Fig. 3, is an enlarged sectional view on the line 3—3, Fig. 4. Fig. 4, is a section on the line 4—4, Fig. 3. Fig. 5, is a perspective view of one of the corner pieces.

A is the platform of the car.

B is one of the sides of the body made up of a series of longitudinal planks and D D are the ends of the body also made up of a series of planks. These planks are secured together by vertical tie bolts *b b*. Overlapping the ends of the side and end planks are corner bands C secured in place by bolts *c c*.

At each side of the car is a truss rod E extending from end to end of the car. The truss rod rests upon suitable shoes *e* secured to the exterior portion of the side B and the ends of the rod pass diagonally through the planks forming the sides, and through an opening *f* in the brace F which is secured at the corner of the car interlocking with the planks of the sides and ends and secured to the corner bands C by the bolts *c*, as clearly shown in Fig. 3. Nuts *e'* are adapted to the threaded ends of each truss rod so that they can be adjusted and strain placed upon the rods to keep the body of the car perfectly rigid.

The corner brace F is made as shown in the perspective view (Fig. 5) preferably of cast metal. The flanges *g g* rest against the sides of the body and the flanges *g'* rests against the ends of the body, and the webs g^2 extend between the planks which are cut away so that they will fit snugly together.

Forming part of the corner brace F is an abutment *h* resting against the ends of the side planks, as clearly shown in Fig. 3, so as to deliver the strain direct to the side planks, thus relieving the rivets or bolts that secure the corner bands to the body of the car.

The extension *h'* of the corner brace passes through the end planks and the reduced portion h^2 passes through an opening in one of the corner bands C, as shown in Fig. 3, so that the nuts *e'* will bear directly against the corner brace F and not against the band or the planks forming the end of the car. Thus the strain of the load is taken directly by the corner brace and not indirectly through the band and planks as formerly. I form on the corner brace F diagonal ribs *i* one on each side of the truss rod which strengthen the brace and protect the rod to a certain extent.

It will be understood that a key or equivalent fastening may be substituted for the nut and threaded bolt but I prefer the construction shown.

I claim as my invention—

1. The combination in a freight car, of the sides, the brace rods extending from end to end of the car on the outside at the center and passing diagonally through the planks of the sides near each end, with inside corner braces having lugs which extend through the end planks of the car, and fastening means adapted to the ends of the rods and resting against the lugs on the corner braces so that the corner braces will take the strain of the truss rods direct, substantially as described.

2. The combination in a freight car, of the side and ends, longitudinal truss rods extending from end to end of the car and bearing on the outside of the car at the center and passing diagonally through the side near each end, with corner plates and inside corner braces, an extension *h'* of each corner brace passing through the end planks and the reduced portion h^2 of the brace passing through

one of the corner plates, with fastening means adapted to the rod bearing directly upon the reduced portion of the brace, substantially as described.

3. The combination of the side and end planks of the car, the inside corner brace consisting of the flanges *g g*, web g^2, lugs *h'* and ribs *i i* with a tie rod passing directly through the side planks of the car and through the brace and resting between the ribs, with a nut fitted to the rod, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN RHOADS.

Witnesses:
JAMES F. HAGEN,
WILLIAM A. BARR.