

J. WITHYCOMBE & C. REIBLEIN.
RAILROAD CAR.

No. 41,409.

Patented Jan. 26, 1864.

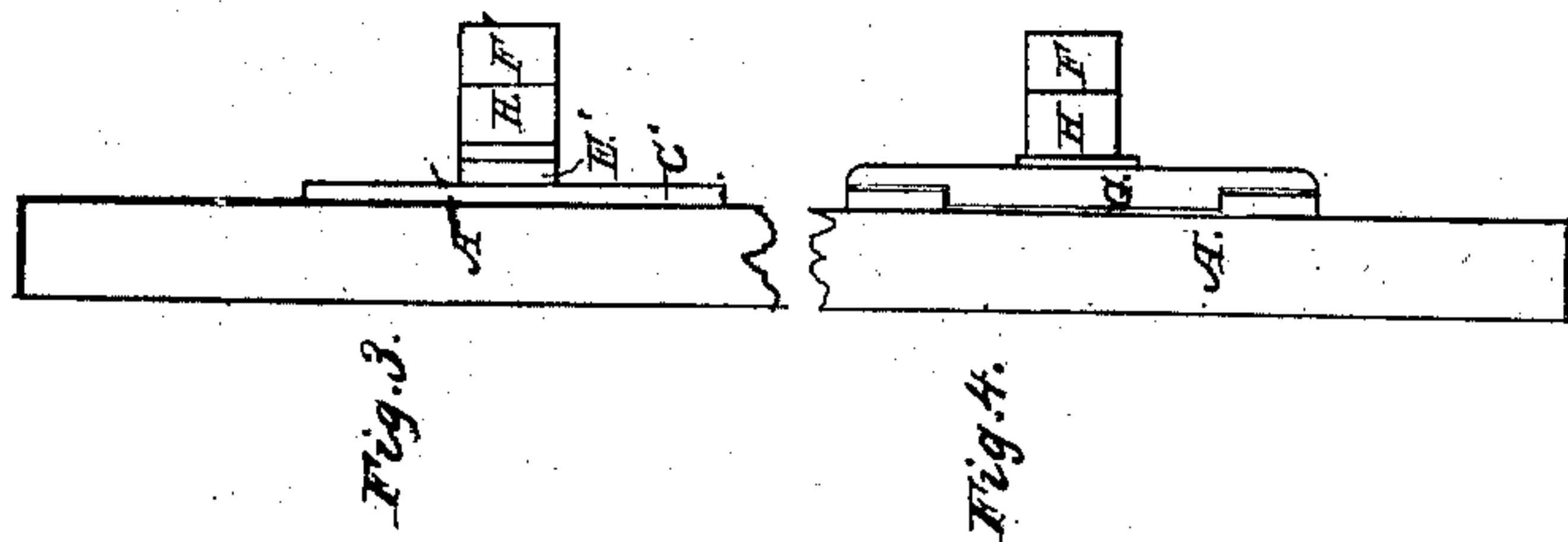


Fig. 3.

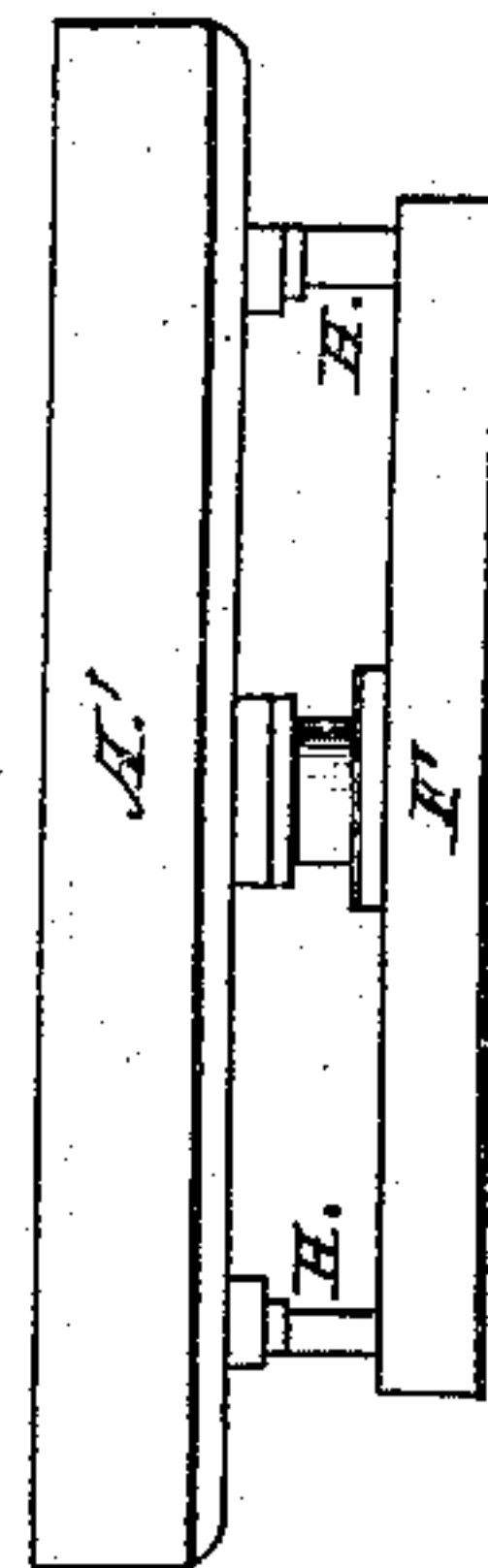


Fig. 4.

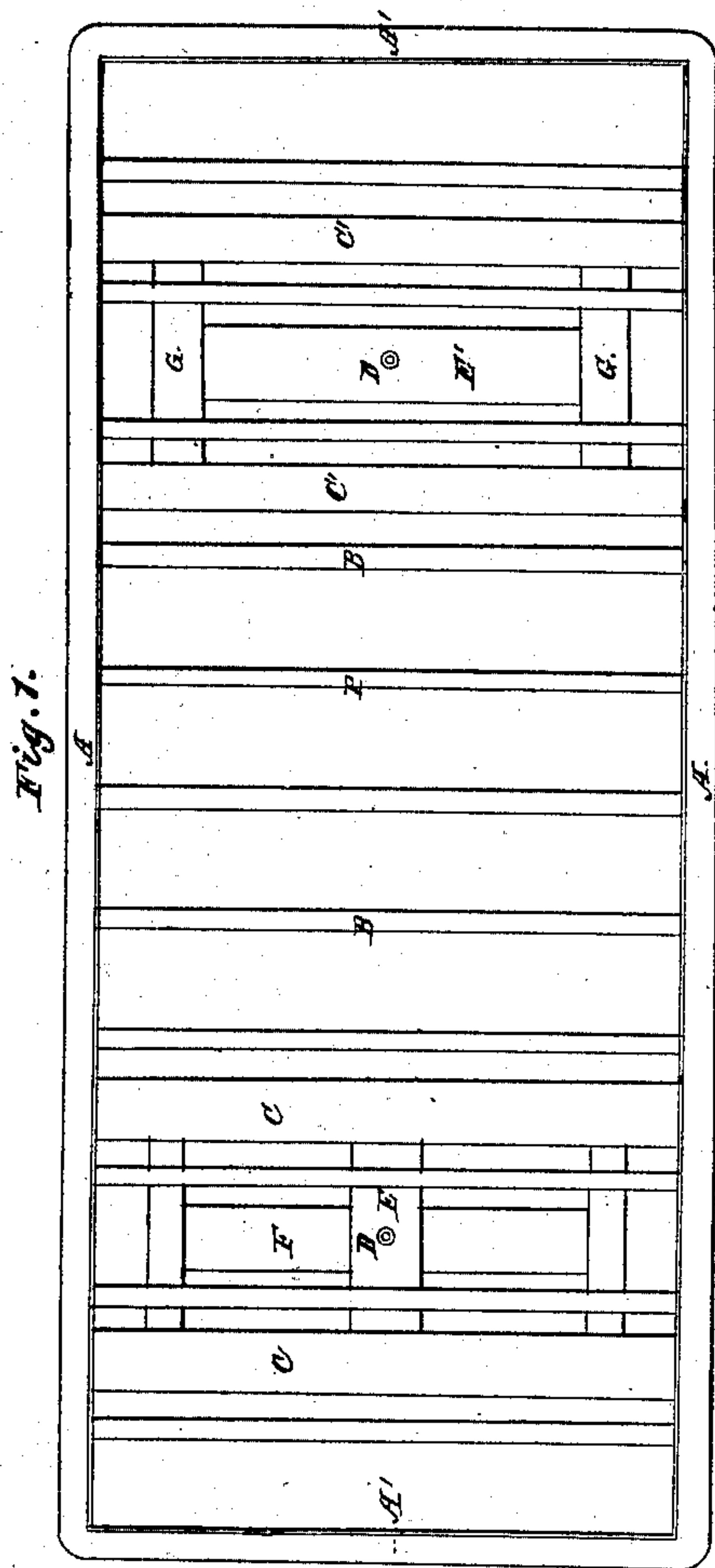


Fig. 1.

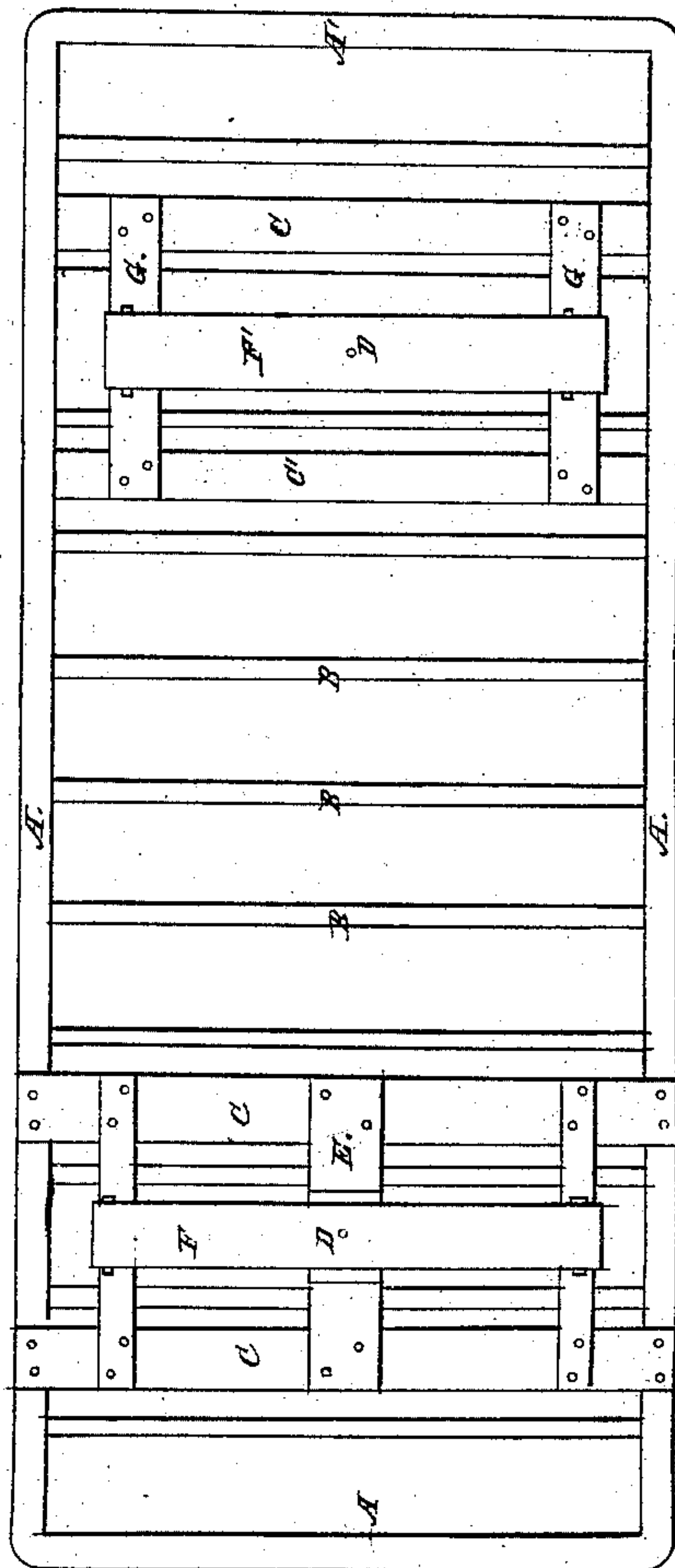


Fig. 2.

Witnesses
W. H. Barnidge
J. Brainerd

Inventors
James Withycombe
Charles Reiblein

UNITED STATES PATENT OFFICE.

JAMES WITHYCOMBE AND CHAS. REIBLEIN, OF CLEVELAND, OHIO.

IMPROVEMENT IN RAILROAD-CARS.

Specification forming part of Letters Patent No. 41,409, dated January 26, 1864.

To all whom it may concern:

Be it known that we, JAMES WITHYCOMBE and CHARLES REIBLEIN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Railroad-Cars; and we do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a top view of the bed of the car-frame. Fig. 2 is a view of the under side. Figs. 3 and 4 are detached parts, showing side views; and Fig. 5 is an end view.

Our invention relates to a novel mode of attaching the bolster to the sills of the car-frame. In the ordinary method now in use the sills are weakened by the bolt-holes that receive the bolts that secure the beam to the sills, which beam supports the bolster. The sills being in this manner weakened at the most exposed point, are caused to sag at points opposite the king-bolt or center-pin, and often to become broken. By our improvement this difficulty is in a great measure obviated, and in case the beams themselves become broken they are easily removed for the introduction of new ones.

In the accompanying drawings, A A represent the sills of the car-frame, and B B represent the cross-bars that support the floor. These are framed into the sill in the usual manner.

The beams that support the bolster are shown at C C C' C'. Those shown at C C have their ends bolted to the under side of the sills at a distance of about three feet apart, and at equal distances forward and back of the position of the center-pin or king-bolt D. The timbers C' C' show another method of fastening to the sills without the use of bolts. It is done by having a short tennon on the ends of the beams and a corresponding mortise in the inner edges of the sills.

At E is shown a cross-piece, which is bolted to the under side of the beams C C at their center or midway between the sills, and running parallel therewith, and which connects them together. The king-bolt D passes through the center of this cross-piece E and holds the bolster F in place by means of the king-bolt D. The cross-piece E may be changed in its position and run transversely to the car-frame, the ends in this case resting upon or being supported by the cross-pieces G G, which are bolted to the under side of the beams C' C' at the distance of eight or ten inches inside of the sills.

The king-bolt D, as in the arrangement previously described, passes through the center of the cross-piece E' and through the bolster F', as before described. The ends of the bolster rest upon brackets, (shown at H H in Figs. 3, 4, and 5,) to prevent too much rocking of the car-body. By placing the beams that support the bolster in the positions herein described the elasticity of the beams C C, C' C', E E', and G G is nearly equal to the springs now in common use; and are in themselves nearly sufficient for all the practical purposes of springs.

The two methods hereinbefore described for attaching and supporting the bolster are substantial equivalents of each other, showing four points of attachment of the beams to the sills, and by this means leaving the sills without being weakened at the point where they are subjected to the greatest amount of strain.

What we claim as our improvement, and desire to secure by Letters Patent, is—

Supporting the bolsters F F' of railroad-cars by the beams C C, C' C', and E E', arranged and operating as and for the purpose set forth.

JAMES WITHYCOMBE.
CHARLES REIBLEIN.

Witnesses:

W. H. BURRIDGE,
J. BRAINERD.