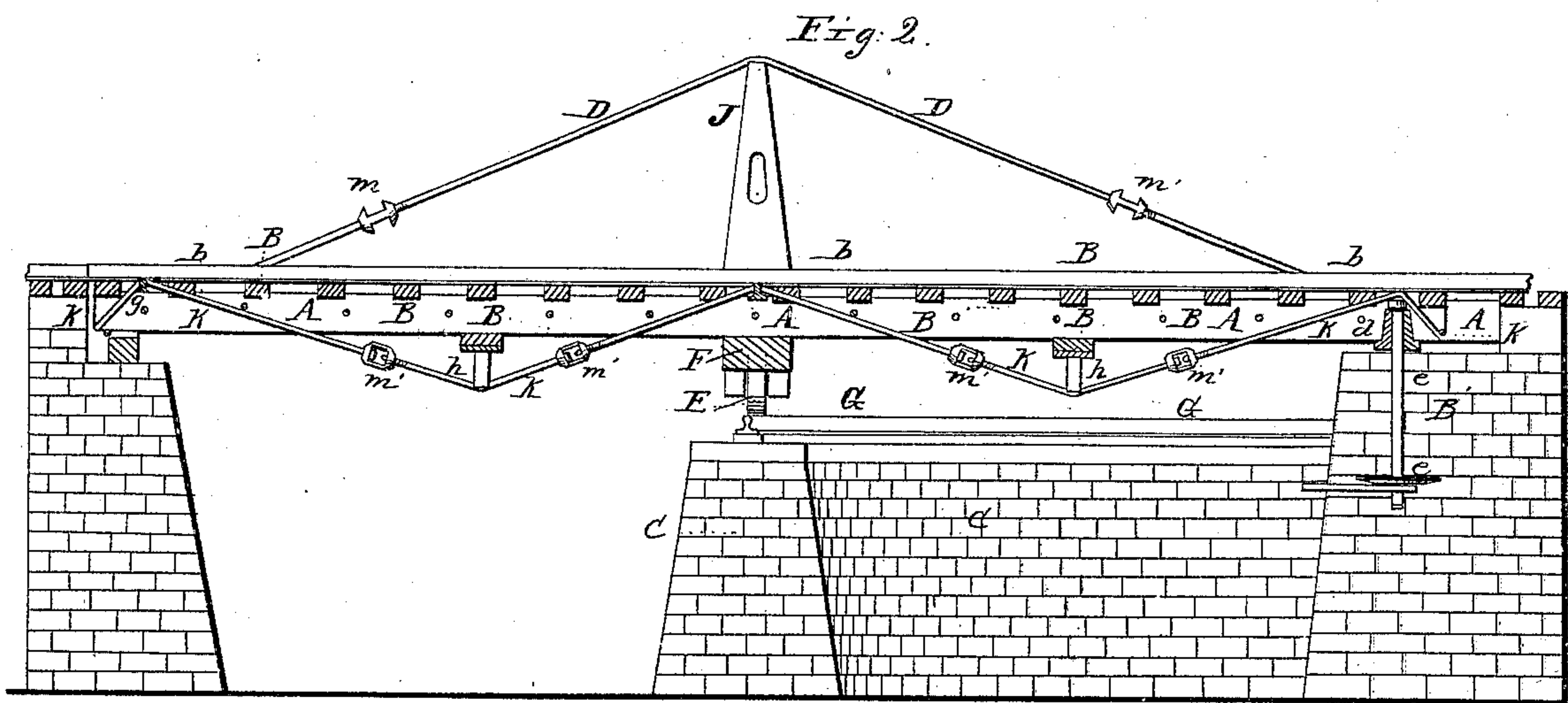
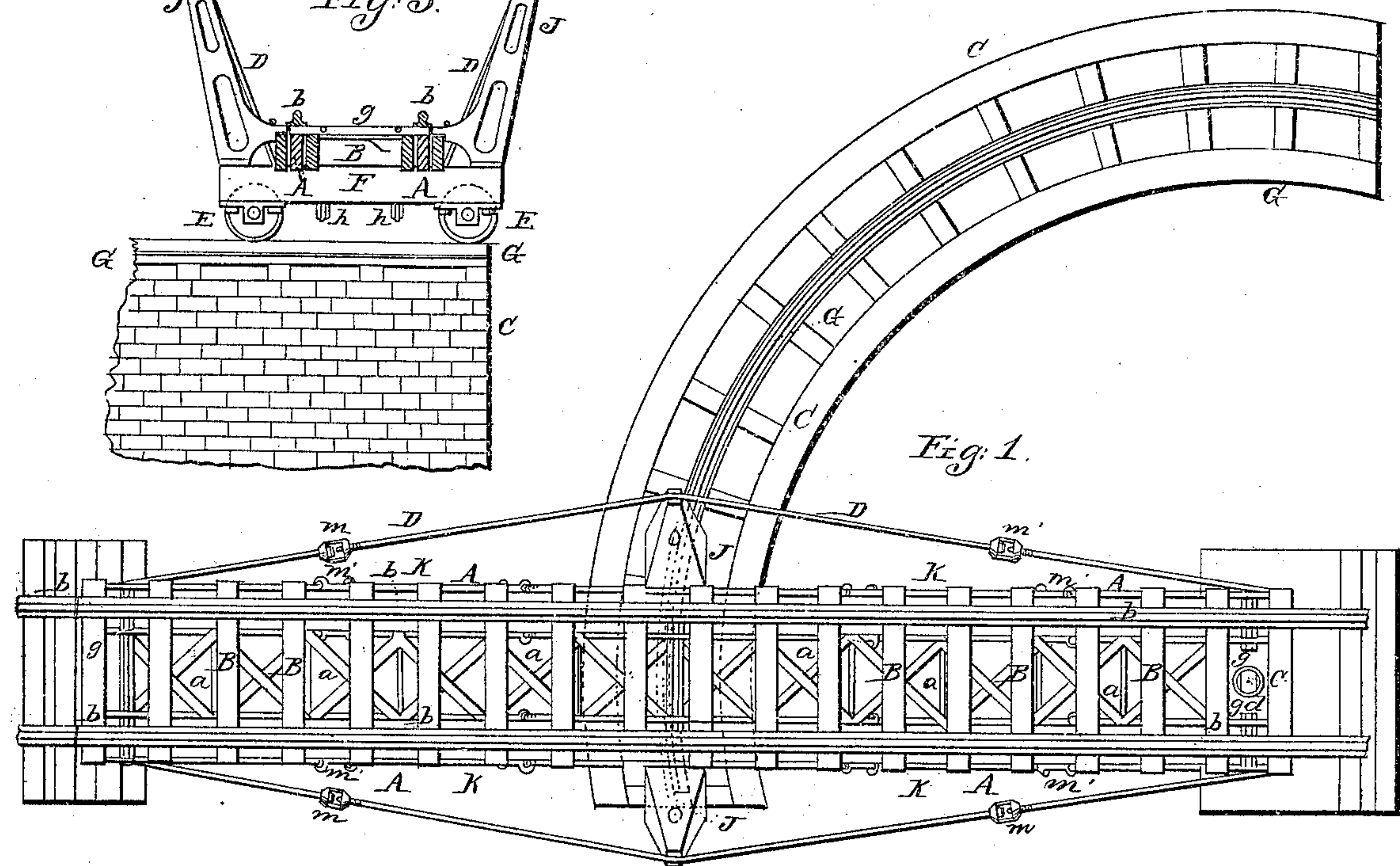
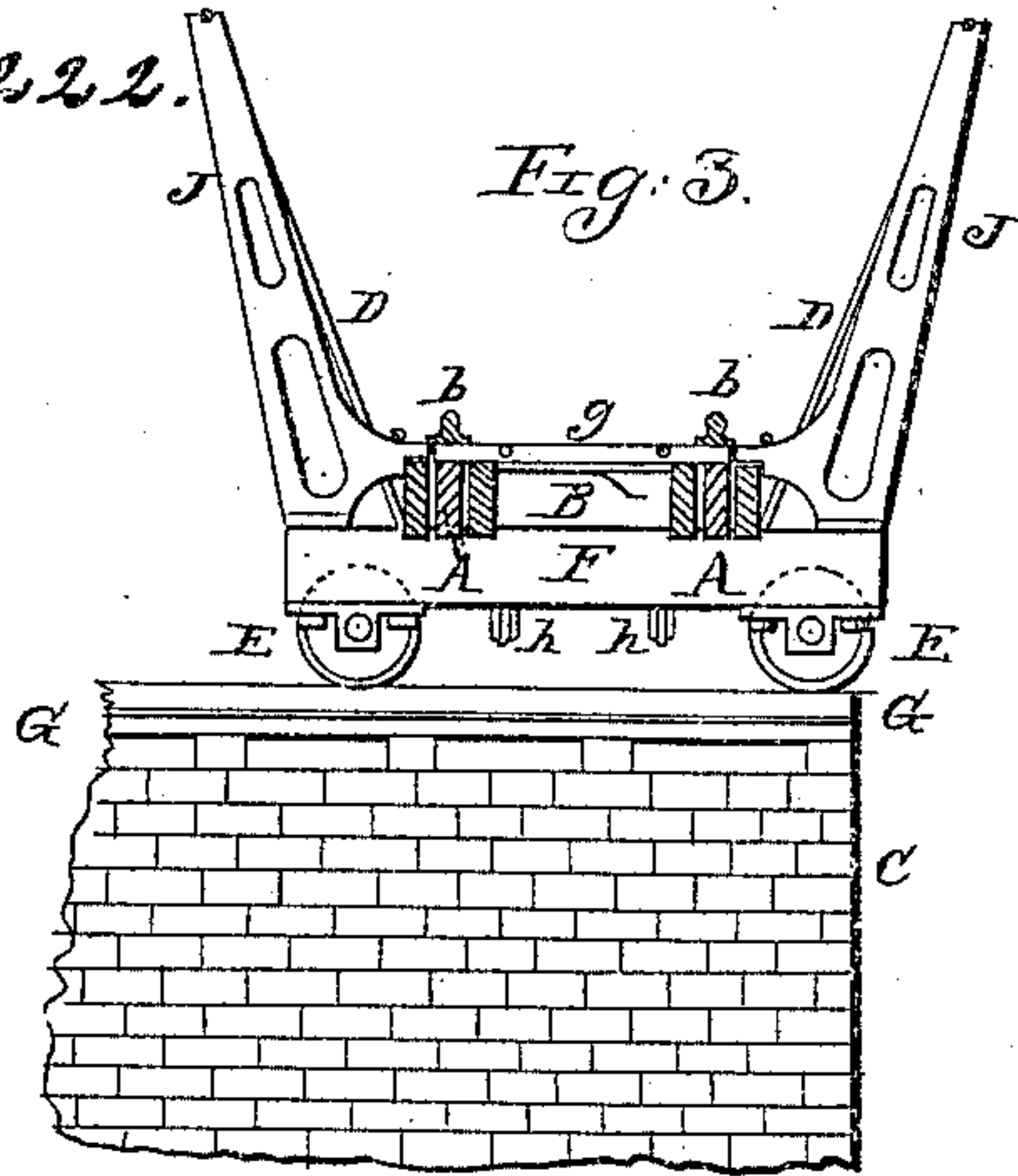


Bayley & Nelson. *Draw Bridge.*

No 218.

Patented Jan. 29, 1861.

31,222.



WITNESSES:

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INVENTORS:

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UNITED STATES PATENT OFFICE.

G. W. R. BAYLEY AND T. W. NELSON, OF BRASHEAR, LOUISIANA.

DRAWBRIDGE.

Specification of Letters Patent No. 31,222, dated January 29, 1861.

To all whom it may concern:

Be it known that we, G. W. R. BAYLEY and T. W. NELSON, both of Brashear, in the parish of St. Marys and State of Louisiana, have invented a new and Improved Draw-bridge; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan view of the improved railway draw-bridge. Fig. 2 is a longitudinal sectional view of the bridge of Fig. 1, showing its construction, and the method of operating it. Fig. 3 is a vertical transverse section through the middle of the bridge, resting on its central support.

Similar letters of reference indicate corresponding parts in the three figures.

To enable those skilled in the art to fully understand our invention we will proceed to describe its construction and operation.

In the annexed drawings A, A are the longitudinal timbers; B are the ties; and *a, a*, are the diagonal cross braces, all of which when securely bolted together as represented in Figs. 1, 2 and 3, constitute the framework of the bridge; and *b, b*, are the railroad rails, which pass over the bridge, and are spiked, or bolted down to its timbers in any suitable manner; said rails connect with the main track at each end, when the bridge is in the position represented in plan view, Fig. 1.

This bridge is suitably pivoted at one end to the abutment B', its opposite end being free to move around on the quarter circle center support abutment C, as will be hereinafter described. The pivot pin *c*, passes vertically through a cast frame *d*, down into the masonry, and rests on a stepping plate *e*, or this pivot connection may be made in any other suitable manner. From

this point or pivot the bridge describes its arc of a circle.

E, E are wheels which are placed under truck frame F, at or near the middle of the bridge, each side thereof, upon which the bridge rolls.

G is a quarter circle rail track, concentric with the pivot pin *c*, on which the wheels E, E, roll, and the bridge is moved.

J, J are two suspension chain columns projecting up and out from each side of the bridge over the track F, at the middle of the bridge, over which columns, pass suspension chains D, D, for bracing and holding up the end of the bridge when it is swung off from its abutment B'.

K, K, are hog chains which pass over pieces of rail at *g, g*, and then down to the lower corners of the chord of the bridge, giving depth of chain with short studs at *h, h*, and avoiding nuts at the ends of the bridge at *k, k*. The suspension chains thus pass around the ends of the bridge from turn buckle *m*, to turn buckle *m'*. The hog chains are double, one outside and one inside of each chord, and they are coupled together at intermediate points.

Having thus described our invention what we claim as new, and desire to secure by Letters Patent, is:—

The construction of draw bridges with one end pivoted upon the abutment and the center of the bridge supported and moving upon a circular track all substantially as and for the purposes herein shown and described.

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