

A. P. BOLLER.
Turn-Tables.

2 Sheets--Sheet 1.

No. 137,887.

Patented April 15, 1873.

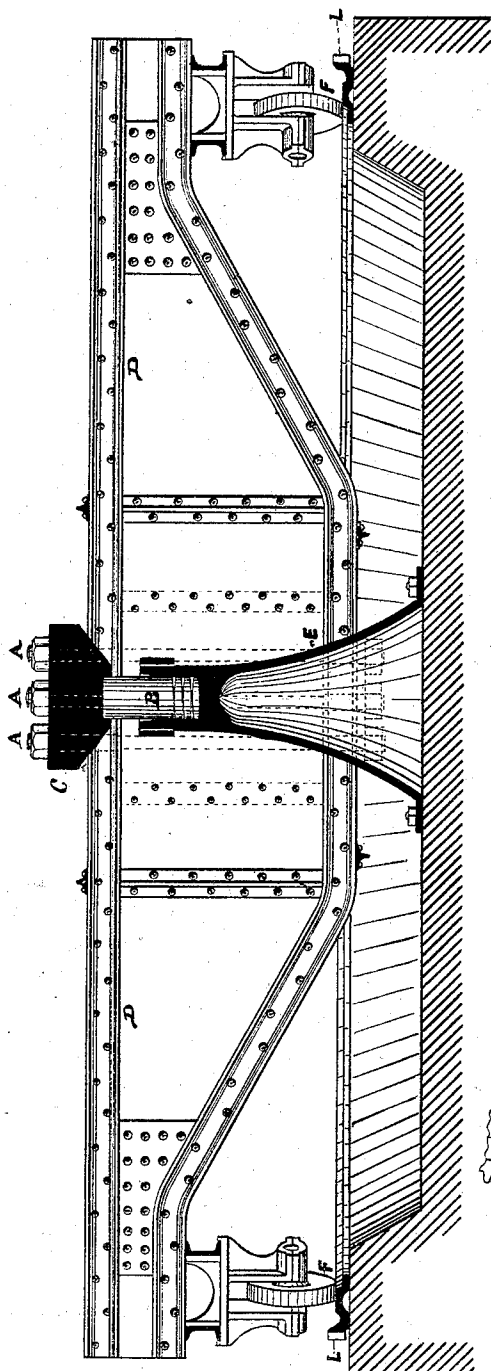


Fig. 1

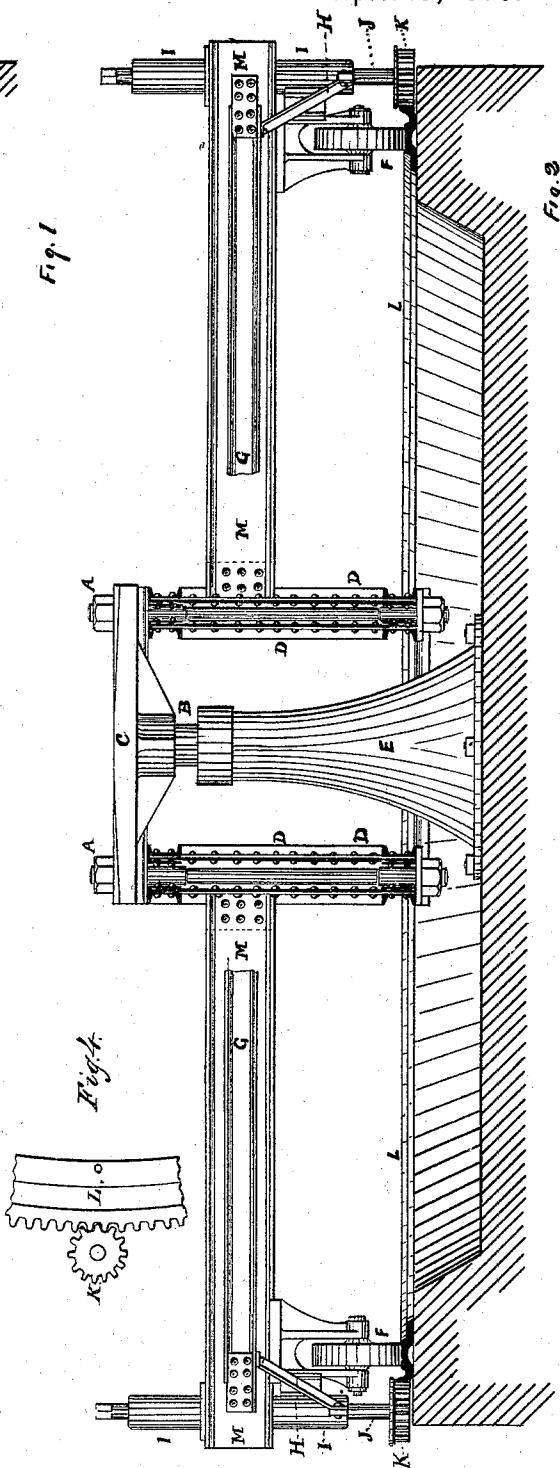


Fig. 2

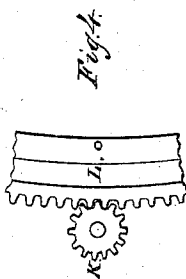


Fig. 3

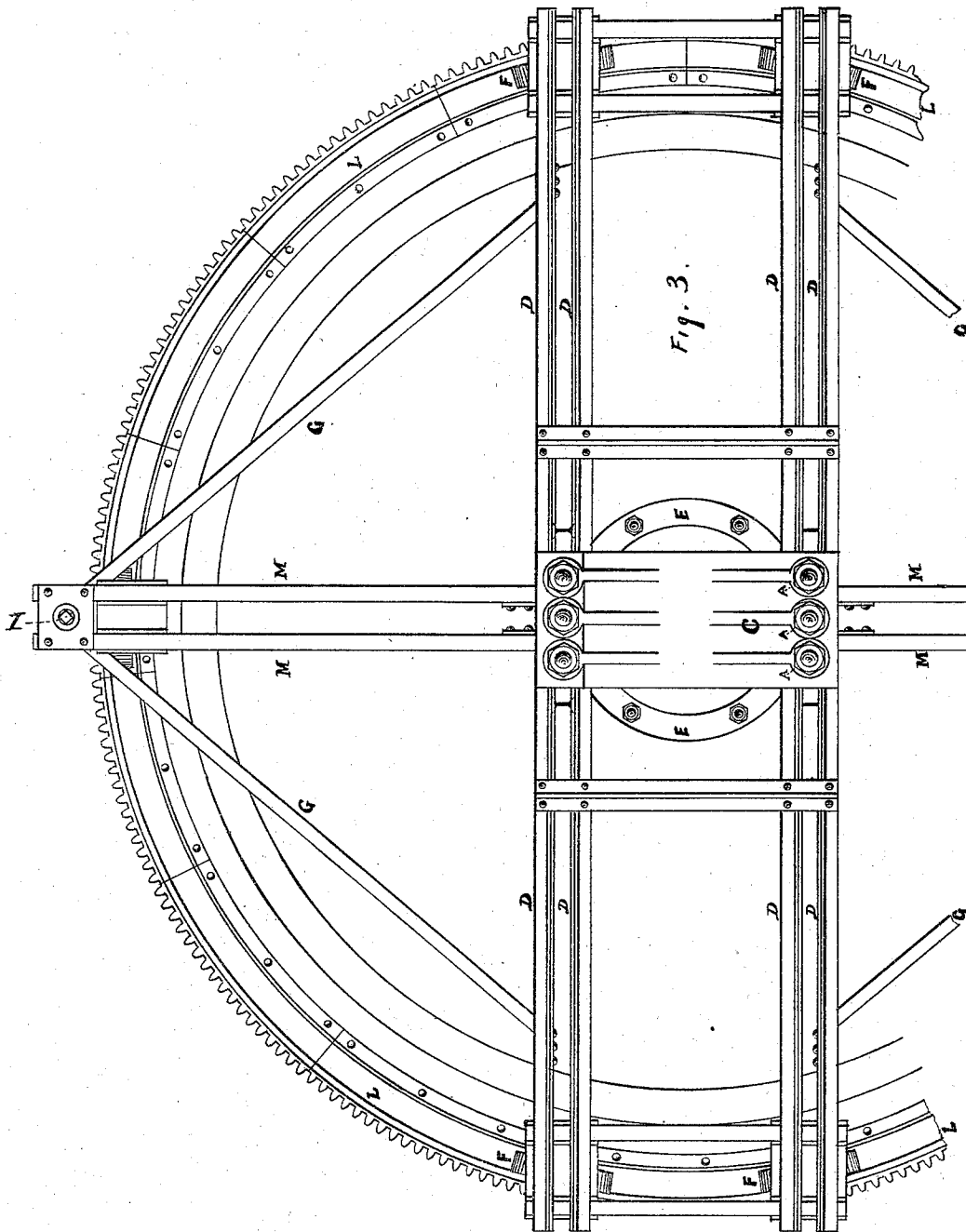
Manuel W. Cooke
J. G. Lamson

Alfred P. Boller
per John D. Kane Jr. Atty.

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UNITED STATES PATENT OFFICE

ALFRED P. BOLLER, OF ORANGE, NEW JERSEY.

IMPROVEMENT IN TURN-TABLES.

Specification forming part of Letters Patent No. **137,887**, dated April 15, 1873; application filed June 13, 1872.

To all whom it may concern:

Be it known that I, ALFRED P. BOLLER, of Orange, county of Essex, in the State of New Jersey, have invented new and useful Improvements in Wrought-Iron Turn-Tables for Swing-Bridges; and I do hereby declare that the following specification, taken in connection with the drawing furnished, is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same.

Figure 1 represents a side view of the table, showing the pinion-shaft attachments and bracings in end view. Fig. 2 represents the elevation at right angles to that shown in Fig. 1, with the pinion-shaft and its connections. Fig. 3 represents the general plan. Fig. 4 is a plan view of the pinion and a portion of the rack.

To enable others to construct my invention, I will describe it more in detail.

First, my invention consists in an improved construction of the main carrying-girders; and, secondly, in the attachment of the pinion-shaft by means of beams and braces, as shown.

The main carrying-girders D D are in pairs, and are composed of plates and angle-bars riveted up in the usual manner. Although in pairs, they are not united by their top and bottom flanges, but are made separate and distinct, except in so far as is necessary to stiffen the lower or compression flange by means of ferrules or separators. The object of thus keeping the girders forming a pair separate is to allow the suspension-bolts A A to pass down between them without requiring the flanges to be largely cut away, as would be the case if the top and bottom were plated together, as is customary in forming compound girders. The pinion-shaft operates in a sleeve, I, which is secured between a pair of wrought-iron beams or channel-bars, M M, or their equivalent, or to a single such beam or channel-bar. This pinion-beam is bolted to the sides of the girders D D, and is further diag-

onally stiffened by means of the wrought-iron beams, channel-bars, or their equivalents G G.

To keep the pinion-shaft in true position, and to secure a smooth working in the rack, the sleeve is braced to the above-described diagonal beams G G by means of stiffening-bars, made (by preference) of angle or T iron, H H; or these bars may run to the bottom of the chords of the bridge, which chords rest upon the girders D D, at or near their ends and in a line perpendicular thereto, or parallel to the pinion-beams M M. Trucks F F are employed to give steadiness to the table.

The object of my invention is to obtain the full strength of wrought-iron girders with proper stiffness, that the ordinary expensive drums and live ring usually adopted may be dispensed with, by which the structure is made much lighter, while it embodies all the strength of the ordinary turn-table. The connection of the pinion-shaft and gearing with the main girders insures stiffness and forms a unit of the whole table.

Having thus described the construction of my invention, I do not claim as new the cone casting E supporting the pivot B, or the suspension-bolts A A A A, &c., and cap C for vertical adjustment; neither the truck or trundle wheels for steadying the table, or the rack and pinion for operating the same, all of which by themselves are old; but

What I claim as new, and desire to secure Letters Patent of the United States for, is—

1. The combination of double girders D D, beams M M, diagonal braces G G, and trucks F F F F, substantially as herein shown and described, and for the purpose set forth.

2. The sleeve I, shaft J, pinion K, secured to beams M M, forming a part of the structure of a turn-table, with angle or T iron braces H H, as and for the purposes herein described and shown.

ALF. P. BOLLER. [L. S.]

Witnesses:

JOHN DANE, Jr.,
MANUEL M. COOKE.