

(No Model.)

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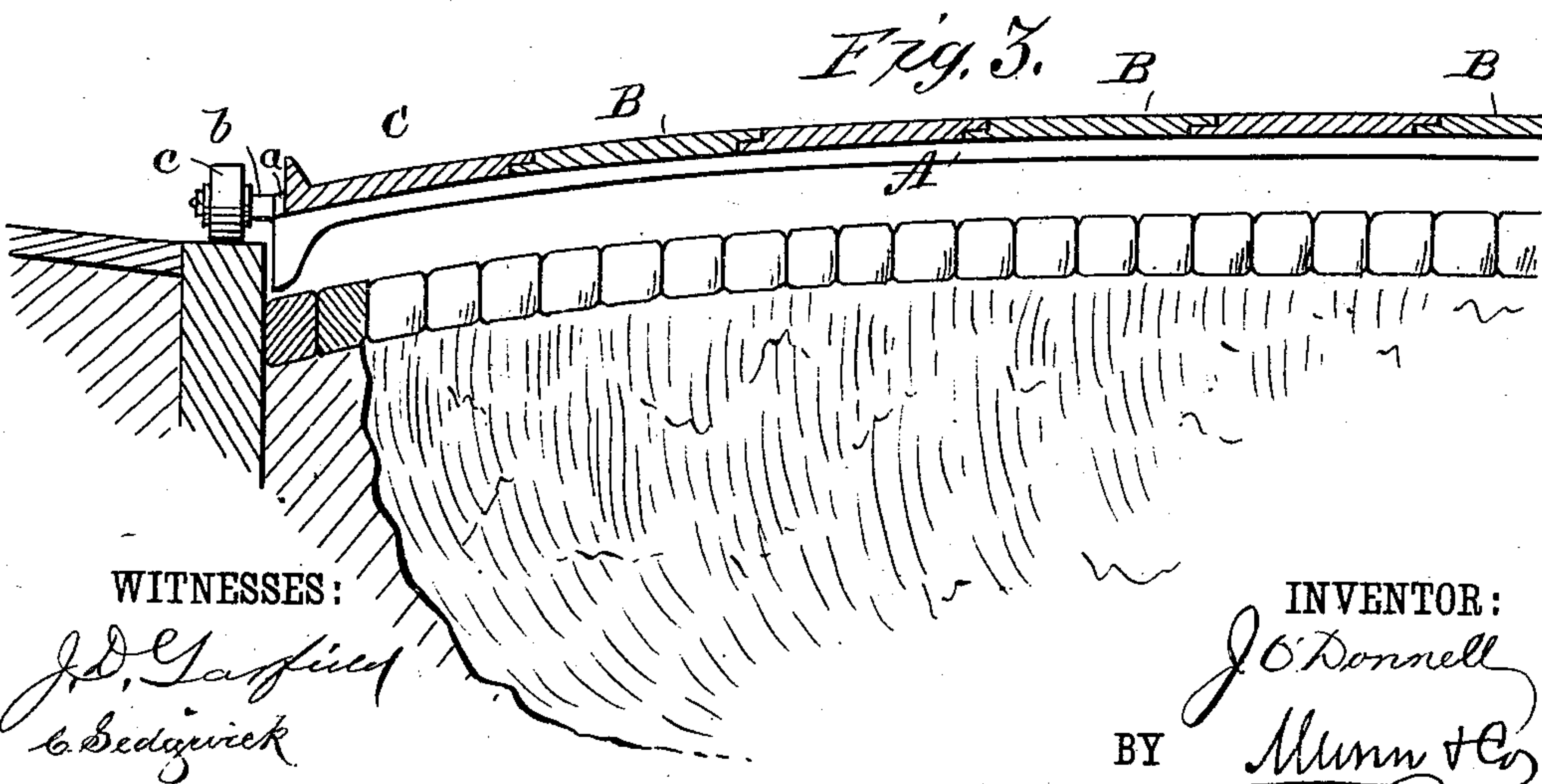
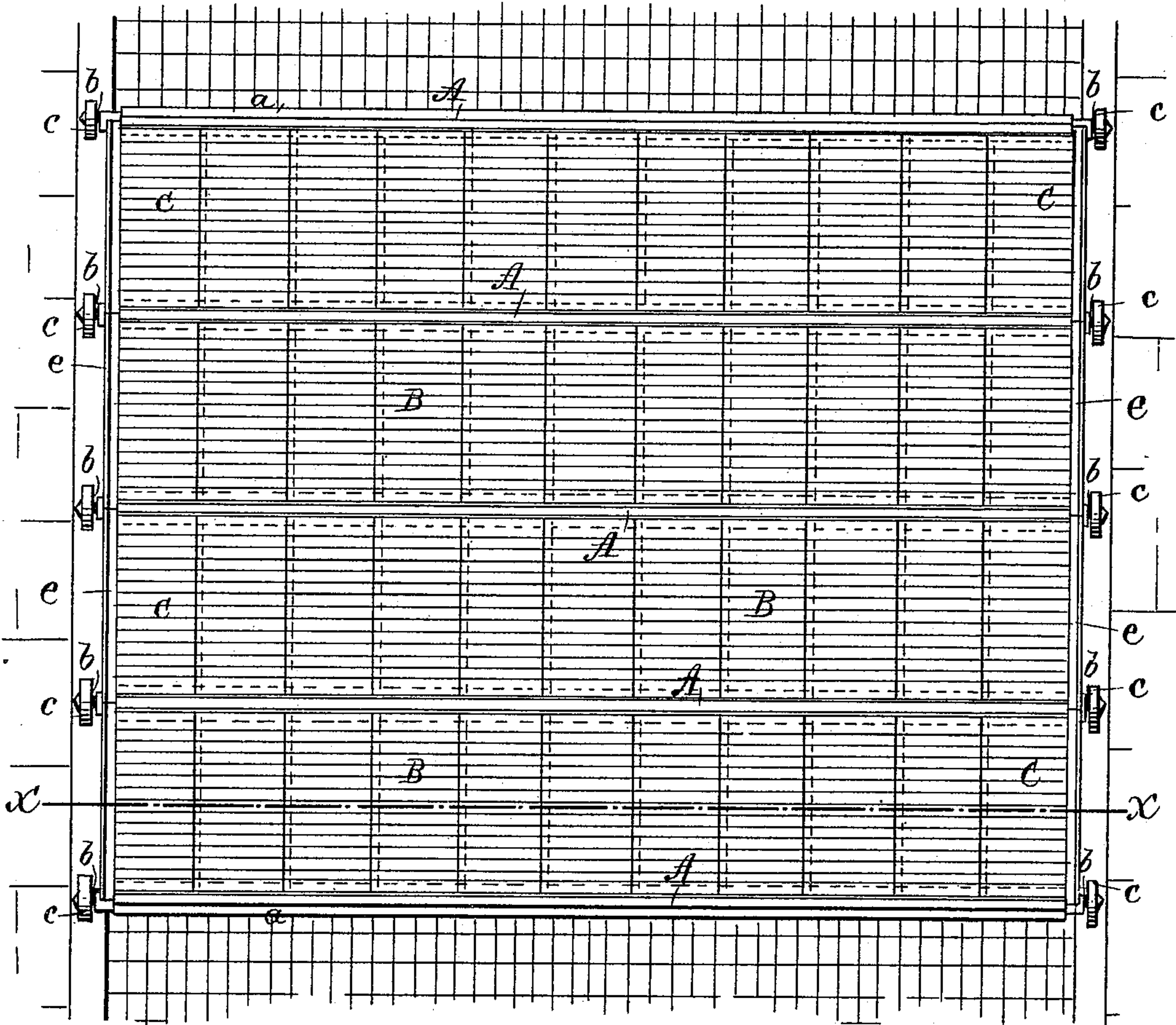
J. O'DONNELL.

STREET BRIDGE.

No. 354,652.

Patented Dec. 21, 1886.

Fig. 1.



WITNESSES:

J. D. Gaffney
C. Sedgwick

INVENTOR:

J. O'Donnell
BY *Munn & Co.*

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

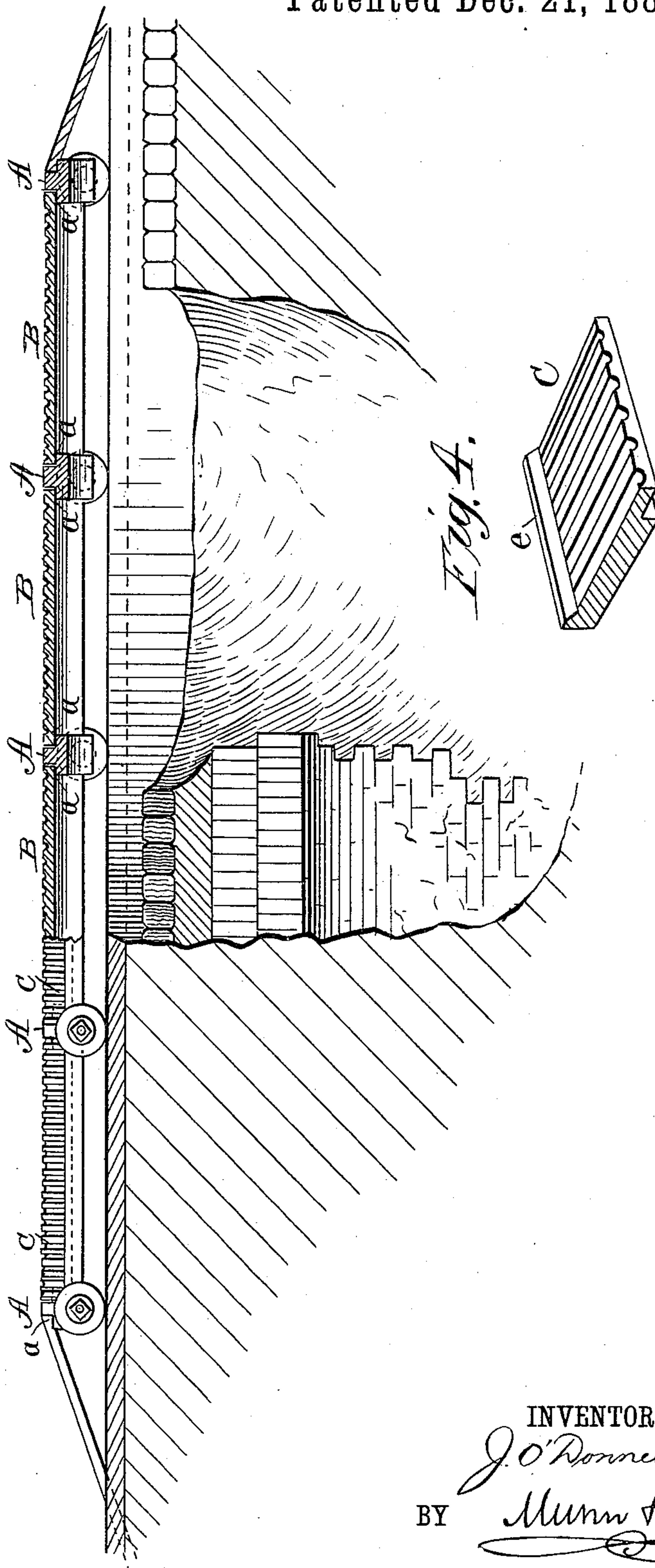
J. O'DONNELL.

STREET BRIDGE.

No. 354,652.

Patented Dec. 21, 1886.

Fig. 2.



WITNESSES:

J. D. Garfield
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UNITED STATES PATENT OFFICE

JOHN O'DONNELL, OF ALBANY, NEW YORK.

STREET-BRIDGE.

SPECIFICATION forming part of Letters Patent No. 354,652, dated December 21, 1886.

Application filed April 28, 1886. Serial No. 200,437. (No model.)

To all whom it may concern:

Be it known that I, JOHN O'DONNELL, of Albany, in the county of Albany and State of New York, have invented a new and useful
5 Improvement in Street-Bridges, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a plan view. Fig. 2 is a side elevation, partly in section. Fig. 3 is a transverse section taken on line *xx* in Fig. 1. Fig.
10 4 is a perspective view, partly in section, of one of the floor-sections.

Similar letters of reference indicate corresponding parts in the different figures of the
15 drawings.

The object of my invention is to construct a bridge for bridging streets from curb to curb, to permit of excavating the street without disturbing traffic.
20

My invention consists of a bridge formed of a series of girders rabbeted on opposite edges, adapted to abut at opposite ends against the curbs at the side of the street, and provided
25 with rollers at their ends, which rest on the sidewalk and permit of moving the girders laterally along the street, and in the combination, with the girders, of corrugated floor-sections fitted to the rabbets of the girders and halved
30 together to form tight joints, all as hereinafter more fully described.

The girders A, which are preferably rolled from wrought-iron or steel, are provided with rabbets *a* in their upper surfaces, at opposite
35 edges, which are of sufficient depth to receive the floor-sections to be supported by the girders. The under surface of each girder is preferably made convex, except at the ends, to facilitate their lateral movement along the street,
40 in the manner presently to be described. The ends of the girders are left square, to afford a suitable surface for abutment against the curbs at opposite sides of the street.

The girders are curved so as to have about
45 the same convexity as the street-surface, and are provided at opposite ends with axles *b*, for receiving small wheels or rollers *c*, which rest upon the edge of the sidewalk adjoining the curb, and facilitate the movement of the girders laterally in the direction of the length of
50 the street or of the entire bridge-section.

Between the girders are fitted floor-sections

B C, which are preferably rounded or transversely corrugated on their upper surfaces, and are about equal in thickness to the
55 depth of the rabbets in the edges of the girders. The edge of one floor-section is rabbeted to overlap the rabbeted portion of the adjacent floor-section, to form an approximately tight joint between the sections, the ends being bolted to the girders. The end sections, C, are provided along their outer edges with
60 ledges *e*, to form a gutter.

My improved bridge is designed especially for application to streets to be tunneled or excavated, and it is applied to the street by locating a series of girders, A, at right angles
65 with the street, with their ends abutting upon the curbs at opposite sides of the street, the distance between the several girders being sufficient to permit of placing the floor-sections B C in position in the rabbets.
70

An approach to the bridge from the pavement is formed by means of planks or earth, or in any other suitable way, and after the work
75 in one section of the street is finished the bridge is moved along bodily; or it may be taken apart and moved in sections. The bridge may be indefinitely broadened by adding new sections.
80

When the bridge is completed over a street, it will allow carriages and cars to travel thereon, and will permit of all kinds of traffic, as upon an ordinary street. At the same time it permits of excavating the road-bed below and
85 affords ample room for the employment of the necessary machinery used in tunneling and in other work under the surface of the road. These bridges may also be used for repairing after the tunneling of the road is finished; or
90 they may, if desirable, be used as a permanent roadway.

The transverse corrugations of the sections B C permit the water to run away to the side of the street. They also strengthen the sections and give the animals traveling thereon
95 a firm foothold.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—
100

1. In a street-bridge, the combination of girders curved to conform to the street-surface; and arranged to abut against the curbs on opposite sides of the street, and floor-plates received on

and supported by the girders, substantially as herein shown and described.

2. The combination, in a street-bridge, of curved rabbeted girders A and floor-plates B C, received in the rabbets of the girders, substantially as herein shown and described.

3. In a street-bridge, the combination of the girders A, rabbeted on opposite edges, and the corrugated floor-plates B C, received in the rabbets and halved together, substantially as herein shown and described.

4. In a street-bridge, the combination of the curved girders A, rabbeted in opposite edges thereof, and provided at opposite ends with axles *b*, to facilitate the lateral movement of the girders, substantially as herein shown and described.

5. The combination, in a street-bridge, of the

girders A, having rabbets *a* in opposite edges thereof and provided with axles *b*, the rollers *c*, fitted to the axles, and the corrugated floor-sections B C, received in the rabbets and halved together, substantially as herein shown and described.

6. The combination, in a street-bridge, of the girders A, having the convex under surface and rabbets *a* in opposite edges thereof, and provided with axles *b*, the rollers *c*, fitted to the axles, and the corrugated floor-sections B C, received in the rabbets and halved together, substantially as herein shown and described.

JOHN O'DONNELL.

Witnesses:

JOHN D. KERNAN,
WM. E. ROGERS.