

No. 743,946.

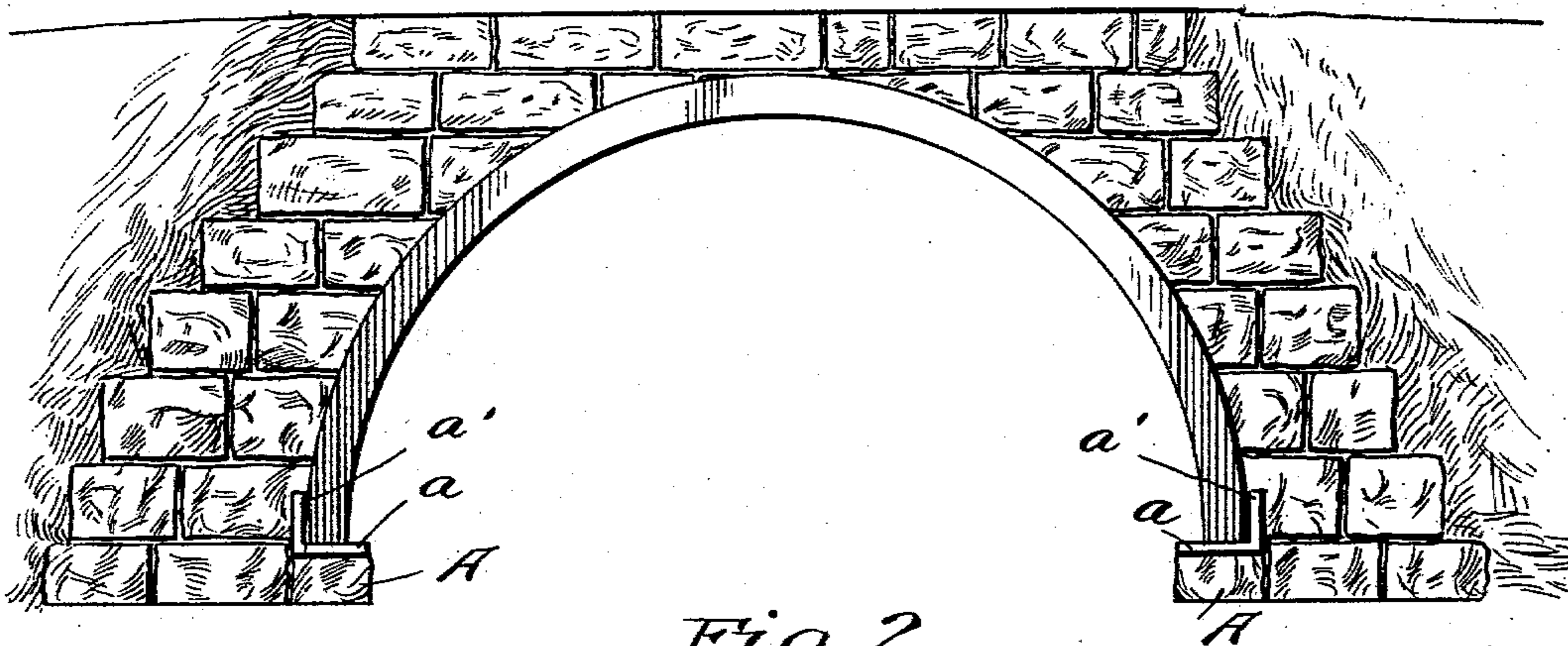
PATENTED NOV. 10, 1903.

E. P. SPAULDING.  
BRIDGE OR CULVERT.

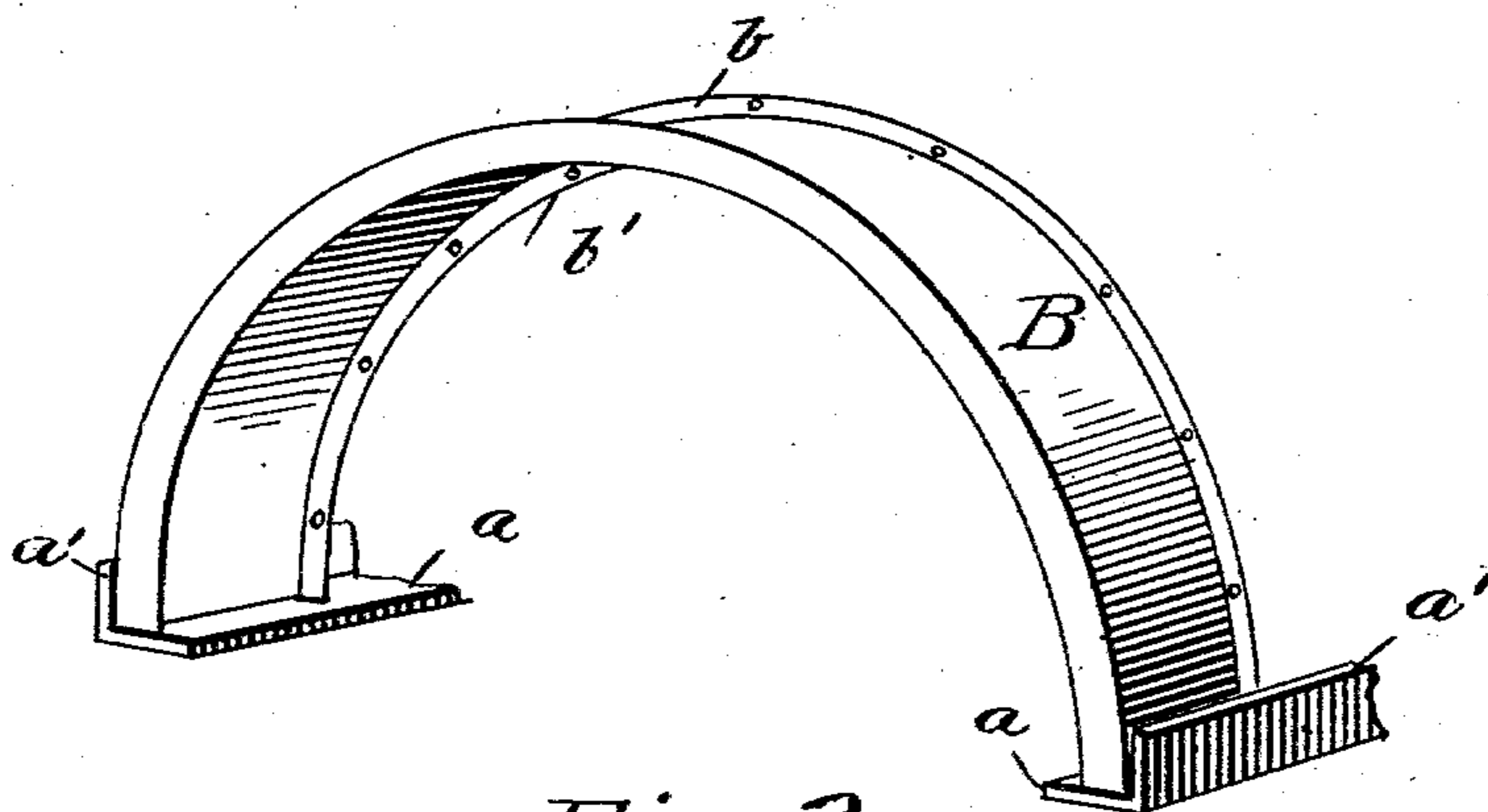
APPLICATION FILED MAR. 13, 1903.

NO MODEL.

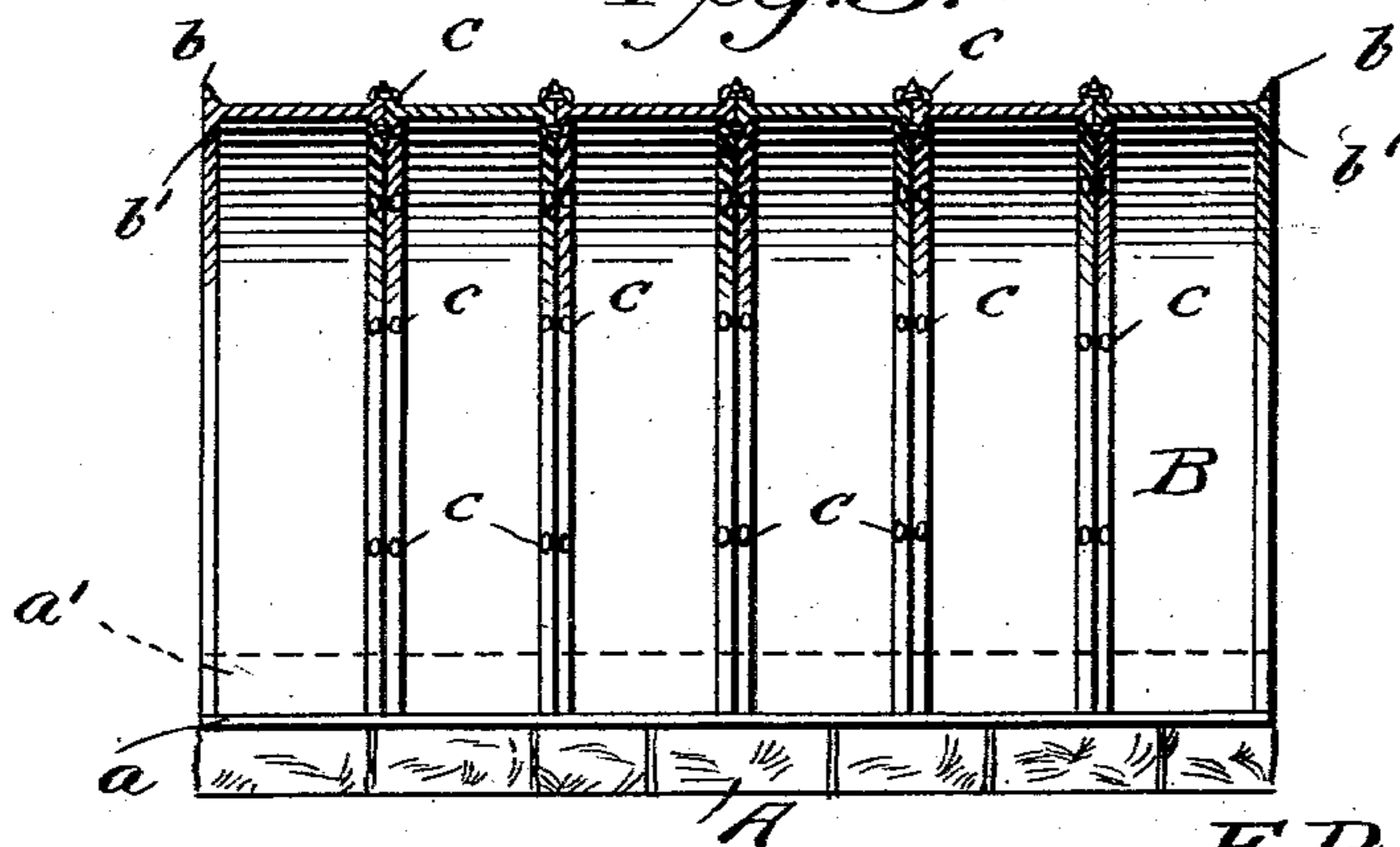
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

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## UNITED STATES PATENT OFFICE.

EDMUND PRIOR SPAULDING, OF MUNSON, OHIO.

## BRIDGE OR CULVERT.

SPECIFICATION forming part of Letters Patent No. 743,946, dated November 10, 1903.

Application filed March 13, 1903. Serial No. 147,677. (No model.)

*To all whom it may concern:*

Be it known that I, EDMUND PRIOR SPAULDING, a citizen of the United States, residing at Munson, in the county of Geauga and State of Ohio, have invented certain new and useful Improvements in Bridges or Culverts, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to means for constructing bridges, culverts, and the like; and the same consists in the construction and arrangement of parts, as will be hereinafter described, and particularly pointed out in the claim.

15 In the accompanying drawings Figure 1 is a side elevation of one end of the structure. Fig. 2 is a perspective view of one of the arches. Fig. 3 is a vertical longitudinal section.

20 Referring to the drawings, the letter A represents foundations arranged on opposite sides of a stream of water and constructed of sufficient length, on each of which are mounted angle-irons, composed of plates *a a'*, made of the same or of an approximating length as the foundations. The letter B denotes curved arches constructed in one piece and having on opposite edges flanges *b b'*, which extend  
25 above and below said edges. These arches are arranged side by side, the flanges *b b'* of which abut one against the other and are secured

together by means of bolts *s* passing through the flanges above and below the opposite edges of the curved arches, whereby they are  
35 held securely together. Between the flanges of the curved arches, at the opposite ends of the bridge or culvert, I arrange blocks of stone of a sufficient height and length, so as to compose the end walls of the bridge or cul-  
40 vert. The flanges between the end walls of the culvert or bridge I fill between the same sand or other suitable material to form a roadway.

Having thus described my invention, what I claim is—

In a bridge or culvert, the combination of curved arches having flanges on opposite edges extending above and below said edges, of the angle-irons for supporting the oppo-  
50 site ends of the arch a foundation for supporting the angle-irons, and stone mounted between the upper surrounding flanges at the opposite ends of the bridge or culvert to form end walls and a filling of suitable material  
55 arranged between the flanges of the arches between the end walls, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

E. PRIOR SPAULDING.

Witnesses:

ROBT. S. PARKS,  
MABEL L. SHAW.