

No. 607,335.

Patented July 12, 1898.

W. A. BORING.
BUILDING TRUSS.

(Application filed Jan. 13, 1898.)

(No Model.)

FIG. 1.

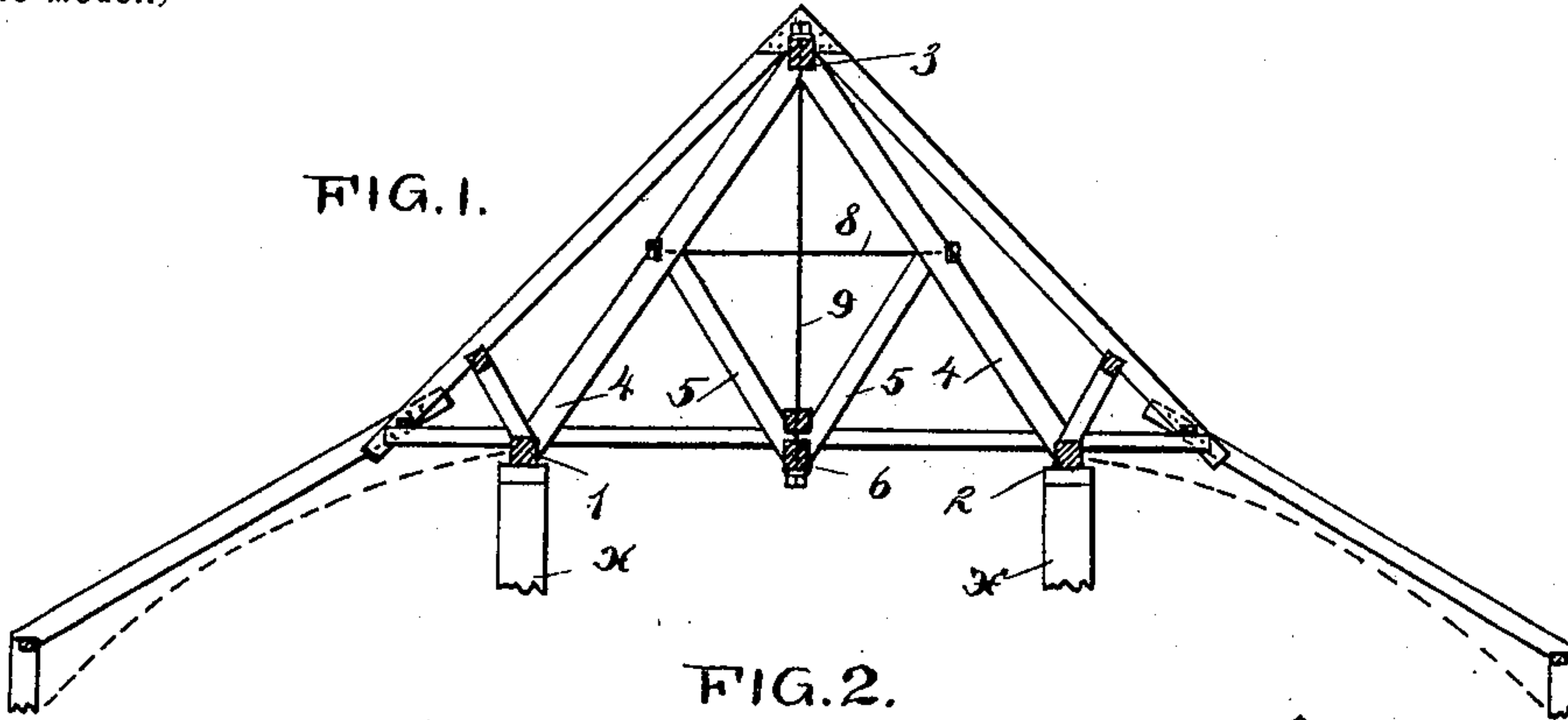


FIG. 2.

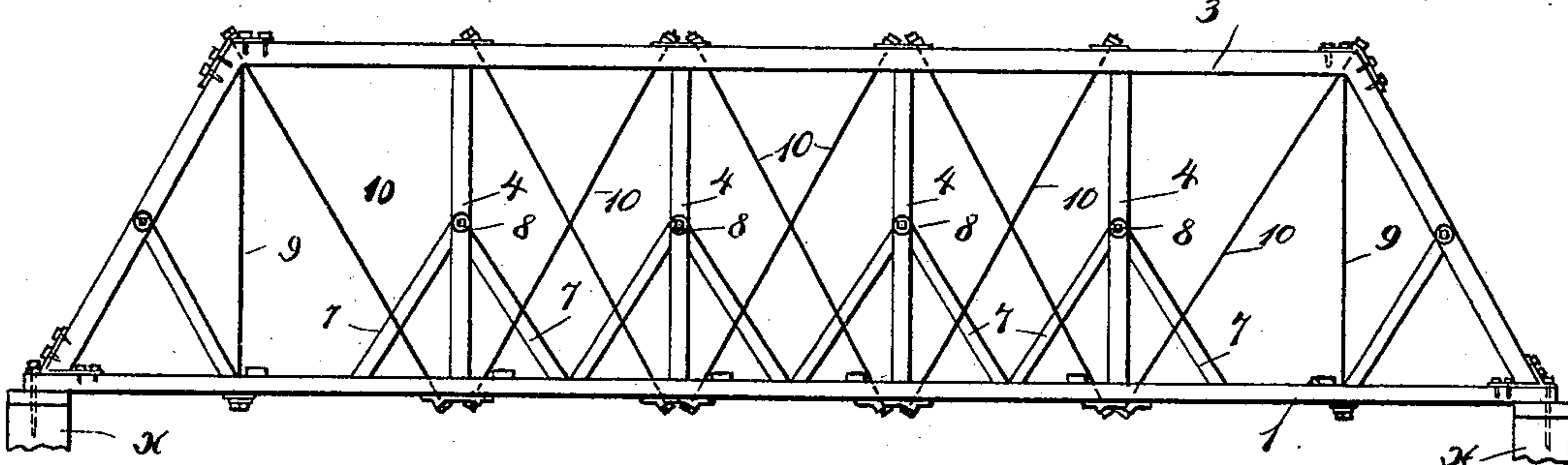


FIG. 3.

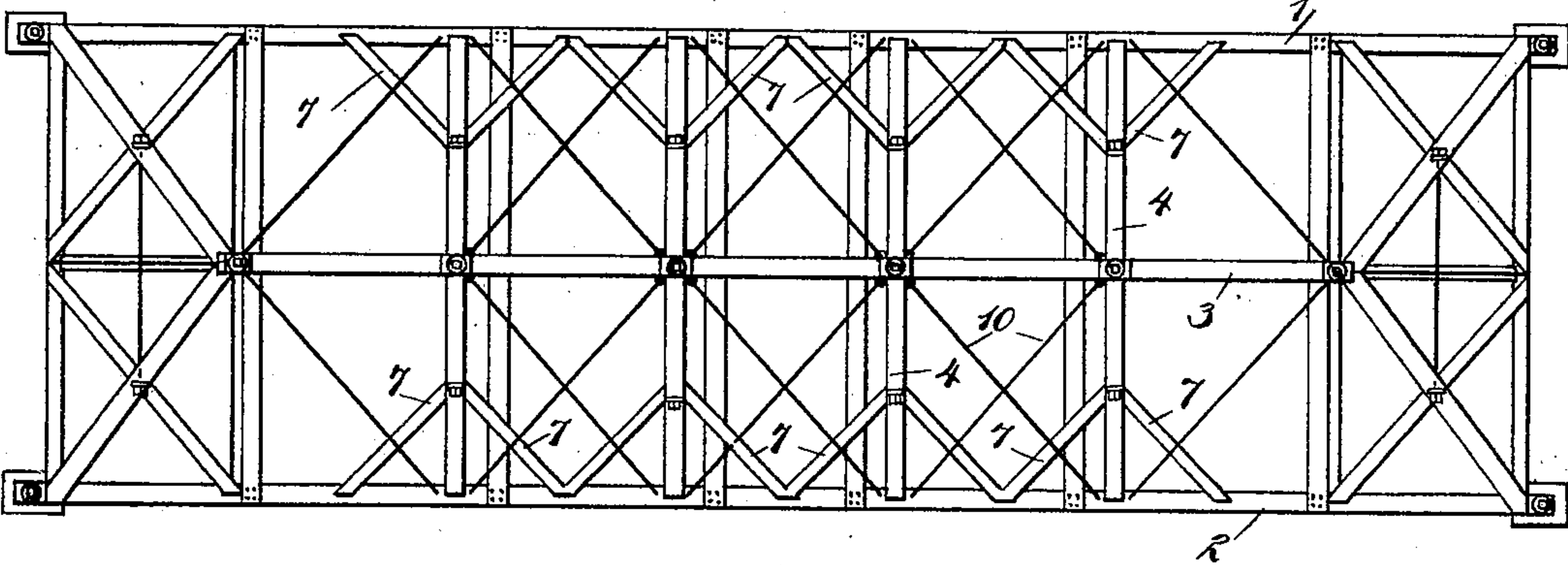


FIG. 4.

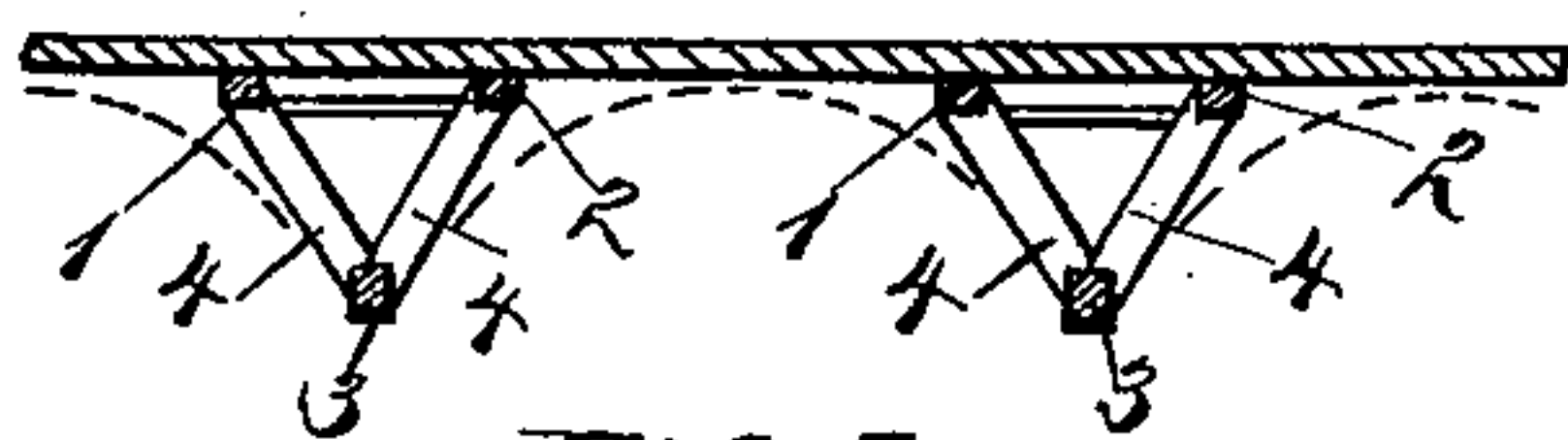
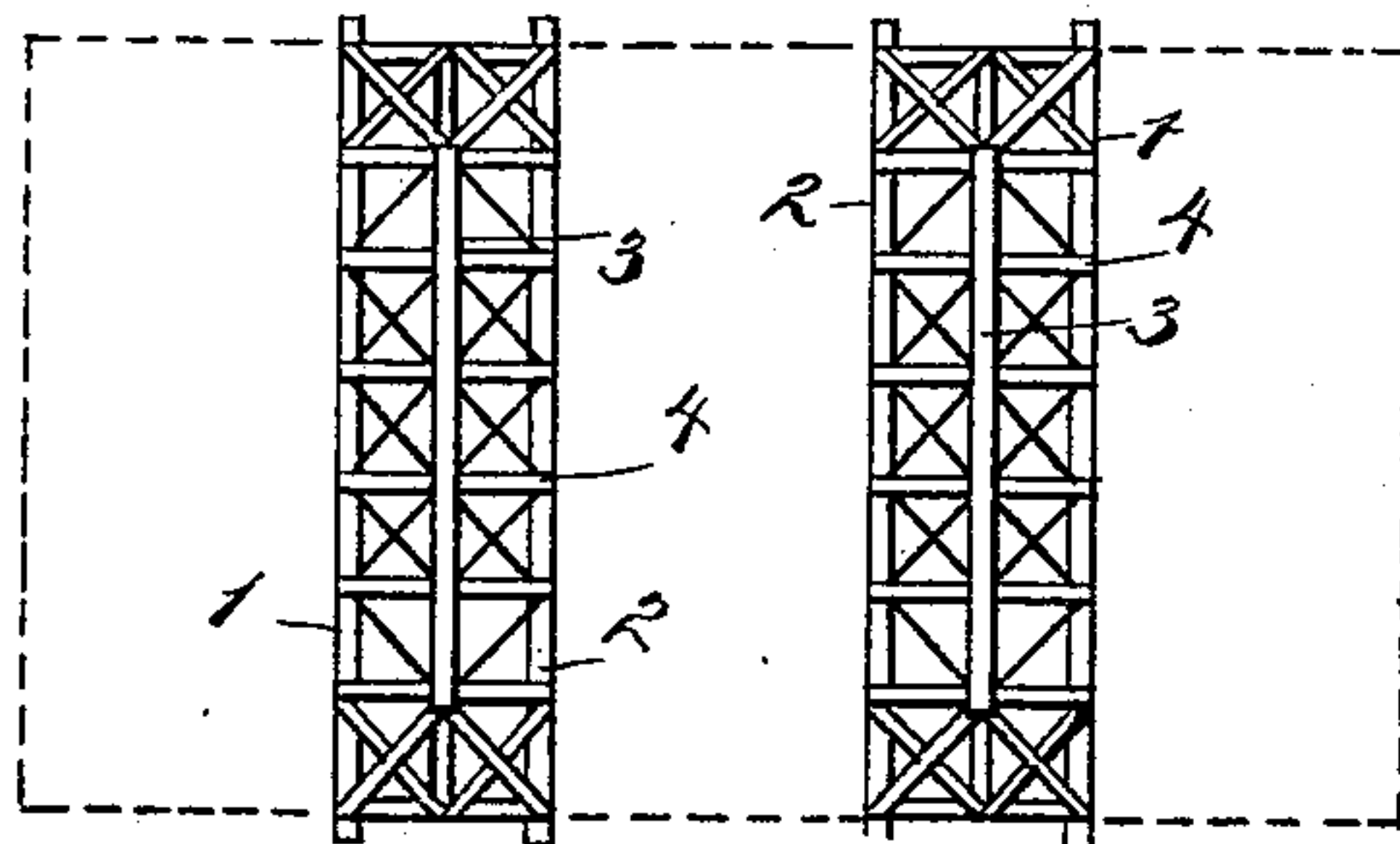


FIG. 5.



WITNESSES:

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BUILDING-TRUSS.

SPECIFICATION forming part of Letters Patent No. 607,335, dated July 12, 1898.

Application filed January 13, 1898. Serial No. 666,556. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ALAPHRON BORING, of New York city, in the county and State of New York, have invented a new and
5 Improved Building-Truss, of which the following is a full, clear, and exact description.

This invention relates to trusses used in building operations for supporting roofs, floors, bridges, and the like; and the object
10 is to provide a truss that can be used in a space which would not receive any other known form of truss of equal bearing capacity in proportion to its weight and in which there is great lateral strength to sustain any
15 probable wind load bearing on a structure supported by the truss—such, for instance, as a roof.

I will describe a truss embodying my invention and then point out the novel features in
20 the appended claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

25 Figure 1 is a partial section and elevation of a truss embodying my invention and showing the same as supporting a roof. Fig. 2 is a side elevation thereof. Fig. 3 is a plan view. Fig. 4 is a section showing the truss
30 as inverted or in the desired position to support a floor, and Fig. 5 is a plan view thereof.

The truss is triangular in cross-section and comprises a series of triangulations. It has two base-chords 1 2 and an apex-chord 3.
35 From each of the base-chords struts 4 extend to the apex-chord 3, and from about the center of these opposite struts knees 5 extend at a downward and inward angle and are connected at their lower ends to a beam 6, which extends lengthwise of the truss. The knees 5
40 will rigidly support the truss against lateral

pressure, and to support the struts against a crushing strain braces 7 are extended divergently from said struts to the base-chords. Opposite struts are connected at about the
45 center by tie-rods 8, and tie-rods 9 extend from the apex-chord to the center beam 6. Proper triangulation of side panels is effected by tie-rods 10.

It will be seen that by the construction set
50 forth a series of triangles is formed, making the truss rigid in all directions.

When the truss is used to support a roof, as indicated in Fig. 1, the ends of the base-chords are to rest on suitable walls or pipes
55 and the ridge-pole of the roof is rested on the apex-chord. When used to support a floor, as indicated in Fig. 4, the truss is to be inverted.

The truss can be made of wood or metal, 60 and as the struts are braced at a middle point in three directions their working length is made about equal to one-half their actual length, thus making it possible to employ comparatively light struts. 65

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

A building-truss, comprising two base-chords, an apex-chord, struts extended from
70 the base-chords to the apex-chord, a center beam extended longitudinally of the truss, at its base, knees extended from about the center of the struts to said beam and braces extended from about the center of each strut to
75 the base-chord, said braces and knees serving to brace the struts in three directions, substantially as specified.

WILLIAM ALAPHRON BORING.

Witnesses:

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