(No Model.)

2 Sheets—Sheet 1.

E. KEATING.

SPAN OR ARCH.

No. 530,424. Patented Dec. 4, 1894.

Fig. 1.

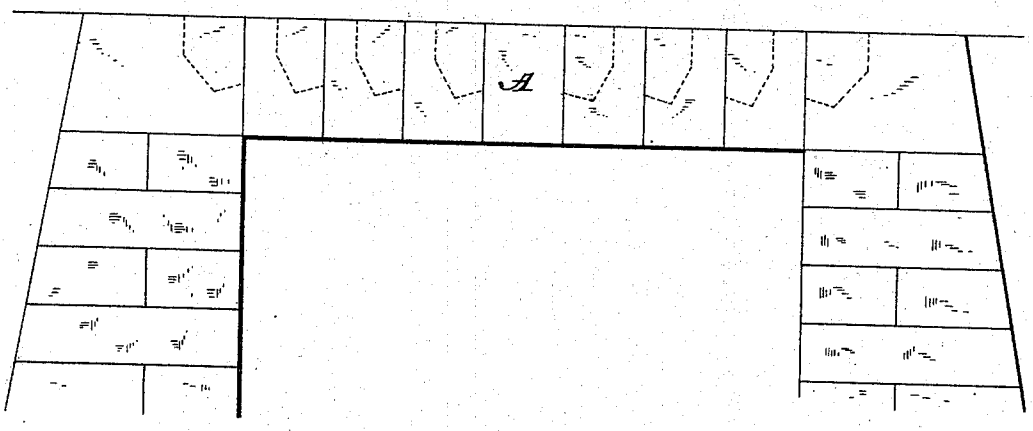
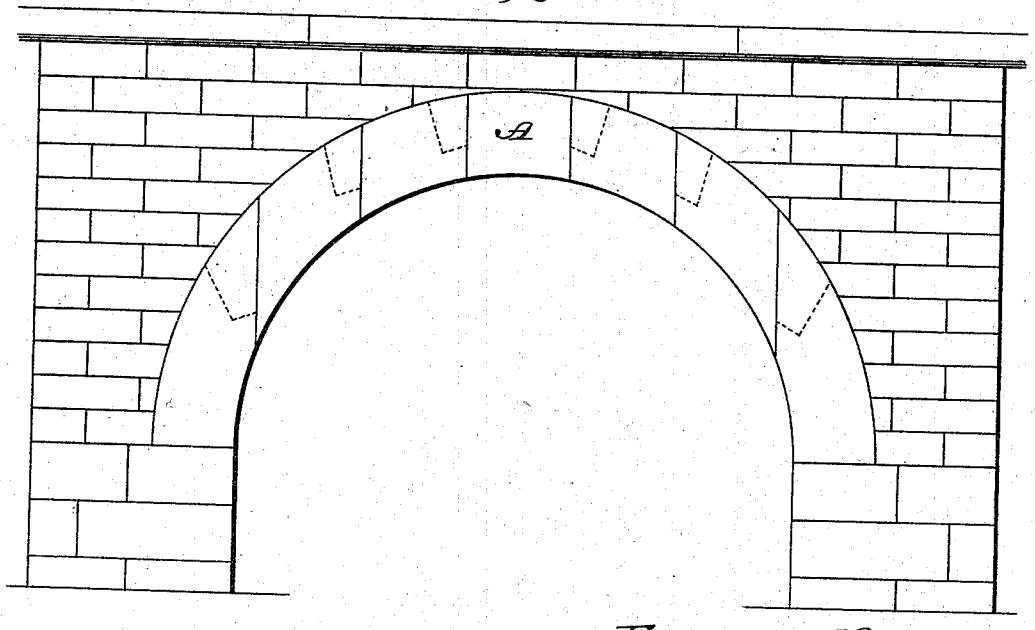


Fig. 4.



WITNESSES
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(No Model.)

2 Sheets—Sheet 2.

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SPAN OR ARCH.

No. 530,424.

Patented Dec. 4, 1894.

Fig. 2.

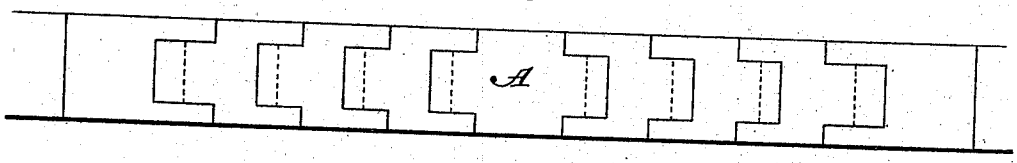


Fig. 3.

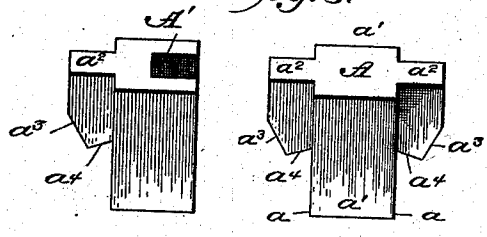
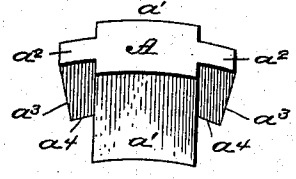


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

EDWARD KEATING, OF TERRE HAUTE, INDIANA.

SPAN OR ARCH.

SPECIFICATION forming part of Letters Patent No. 530,424, dated December 4, 1894.

Application filed November 1, 1894. Serial No. 527,656. (No model.)

To all whom it may concern:

Be it known that I, EDWARD KEATING, a citizen of the United States of America, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Spans or Arches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in blocks for building spans or arches, the same being especially designed for use in building bridges, spans and similar structures; and it consists in the special construction of the molded blocks which are so shaped as to have projections and recesses which interlock, so that when a series of blocks are placed in juxtaposition they will be self-sustaining.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a span made of blocks constructed in accordance with my invention. Fig. 2 is a plan view; Fig. 3 detail views of the key and one of the intermediate blocks. Fig. 4 is a side elevation of an arch constructed with my improved blocks, and Fig. 5 is a perspective view of the key.

A designates the center-blocks or keys of the span and arch, the key for the span being provided with straight or vertical edges $a\ a$ and flat sides a'. From this practically rectangular block project side flanges a^2 having vertical sides and a lower end which is inclined downwardly away from the center, as at a^3 and a^4. It is especially desired that the flanges or projecting portions should have the inclined portion a^3 and the portion a^4 at an opposite angle thereto, as such construction forms a very efficient and rigid connection when the blocks are placed in juxtaposition with the projecting portions or flanges in engagement with corresponding recesses in adjoining blocks. The recess is designated by the letter A'.

It will be seen from the foregoing that each intermediate block is provided on opposite sides with a projecting portion and with a corresponding recess neither of which extends to the lower end of the block.

In Figs. 4 and 5 I have shown a slight modification of my invention in which the blocks instead of having straight upper and lower surfaces are rounded or curved in the segment of a circle, and the ends of the projections or flanges are inclined or beveled inwardly to meet the inwardly-beveled lower ends.

Blocks constructed as herein described may be made of pottery, clay, artificial stone or cast metal according to the usages to which it is put.

I am aware that prior to my invention it has been proposed to provide blocks with dove-tail projecting portions on one side and corresponding recesses on the other, said projections and recesses extending the entire depth of the blocks; also that bricks have been formed having on one side longitudinal projecting portions and similar recesses or grooves on the opposite side, said grooves and recesses extending the whole width of the sides of the brick. I therefore do not claim such construction as my invention, as with building bricks constructed as shown in the accompanying drawings there can neither be a vertical nor lateral displacement, and the bricks or blocks will be self-sustaining when placed in position.

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

1. A block having a rectangular body portion with a vertical recess and a projecting portion having an inclined side and bottom, substantially as shown and for the purpose set forth.

2. In combination with a plurality of blocks having recesses, of a key or center-block having a rectangular body portion and projections which extend therefrom, the projections being inclined in opposite directions on their lower edges, the recesses in the adjoining blocks being of a corresponding configura-

tion, substantially as shown and for the purpose set forth.

3. A building block for the construction of arches, having parallel upper and lower ends, vertical sides, one of the sides having a projecting portion with inclined end and bottom a^3 and a^4 and on the opposite side a correspondingly shaped recess, the blocks being adapted to interlock, substantially as shown and for the purpose set forth.

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

EDWARD KEATING.

Witnesses:

THOMAS GIBNEY,

THOS. F. RONAN.