

F. ALSIP.

Improvement in Construction of Arches.

No. 120,608.

Patented Nov. 7, 1871.

Fig. 1.

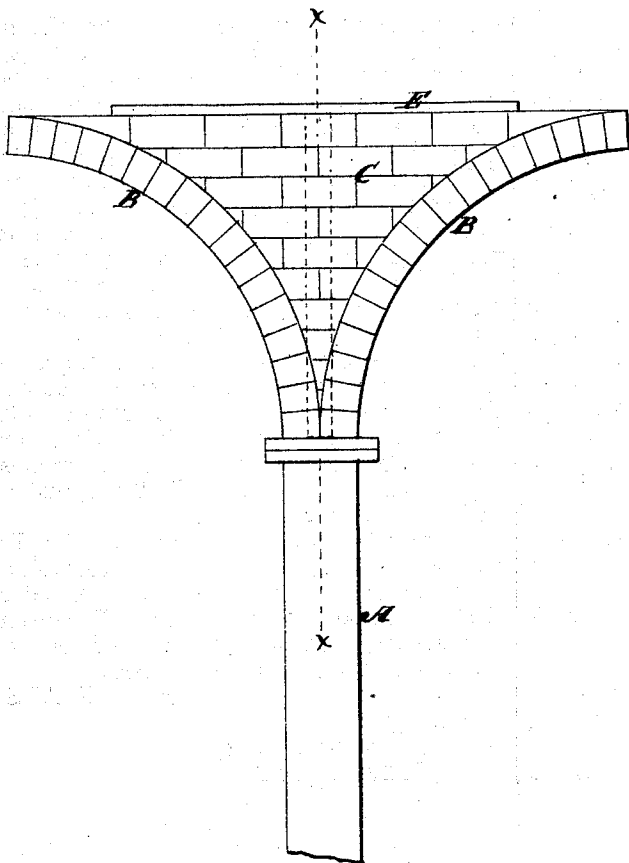
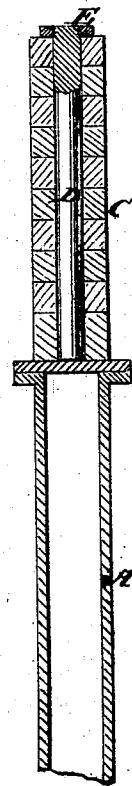


Fig. 2.



Witnesses:

E. Wolff.
Francis Mc Ardle.

Inventor:

F. Alsip.

PER

Wm. H. H. H.

Attorneys.

UNITED STATES PATENT OFFICE.

FRANK ALSIP, OF NORTH MCGREGOR, IOWA.

IMPROVEMENT IN CONSTRUCTION OF ARCHES.

Specification forming part of Letters Patent No. 120,608, dated November 7, 1871.

To all whom it may concern:

Be it known that I, FRANK ALSIP, of North McGregor, in the county of Clayton and State of Iowa, have invented a new and useful Improvement in the Construction of Arches; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to an important improvement in brick arches, whereby such arches are made to sustain a greater weight and are more durable than when built in the ordinary manner; and it consists in a bearer of metal or other suitable material, supported on the cap-piece of the column, and in a cross-piece, the arrangement being as hereinafter more fully described.

In the accompanying drawing, Figure 1 is a front elevation of the column and arches. Fig. 2 is a vertical section taken on the line *xx* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the column. B B are two arches sprung from the top of the column. C represents the wall between the arches. Arches of mason work supported on iron columns are usually constructed in this manner. On stone or other columns the

construction is the same, but when the arches are sprung from small iron columns a cap of a size out of proportion with the size of the column is required, to give the arches foot-hold when the arches are built sufficiently strong to support a brick wall. To remedy this difficulty I place an upright bearer, D, in the wall, resting on the cap of the column, as seen in Fig. 2. It is also seen in Fig. 1 in dotted lines. E is a cross-piece, either attached to or resting on the end of the bearer, as represented. This cross-piece rests on a course of brick, and is designed to be about on a level with the top of the arches.

It will be seen that by this arrangement the wall is sustained by the bearer and column and the arches are relieved of the greater portion of its weight. The caps may be made in proportion to the size of the column, as the arches may be made much lighter, while the thrust of the arches is much diminished.

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

In combination with the column A and arches B B, the bearer D and cross-piece E, constructed and arranged substantially as and for the purposes herein shown and described.

FRANK ALSIP.

Witnesses:

THOMAS RANNEY,
JOHN M. LANE.

(4)