

W. ERWIN.
Apparatus for Supporting Centers for Masonry
Arches and Floors.

No. 215,595.

Patented May 20, 1879.

Fig 1.

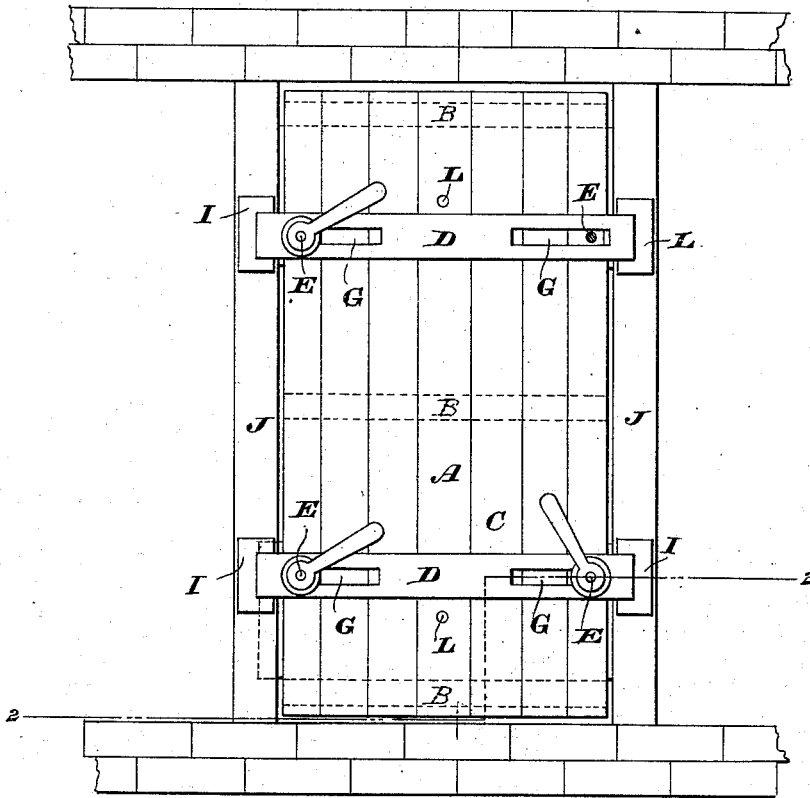
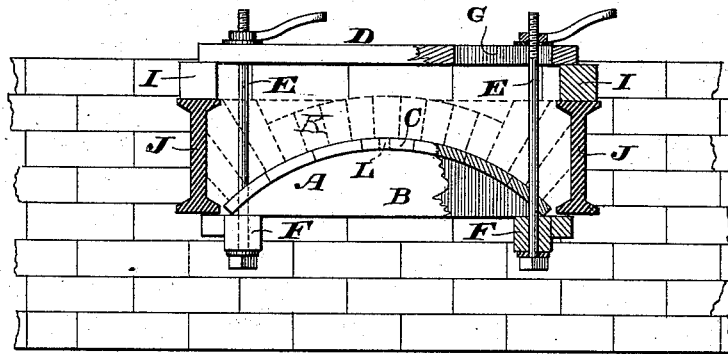


Fig 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN APPARATUS FOR SUPPORTING CENTERS FOR MASONRY ARCHES AND FLOORS.

Specification forming part of Letters Patent No. **215,595**, dated May 20, 1879; application filed April 9, 1879.

To all whom it may concern:

Be it known that I, WILLIAM ERWIN, of West Point, in the State of New York, have invented a new and useful Improvement in Apparatus for Supporting Centers for Masonry Arches and Floors, of which the following is a specification.

The object of my invention is to do away with the slow and expensive construction of scaffolding, which is necessary in all buildings with high ceilings, and to provide a cheap, portable, and easily-adjustable support which can be arranged to suit any required width of center.

To accomplish this I suspend the center from movable cross-bars resting on the joists or supporting-beams of the floor by means of screw bolts or rods attached to the center, which pass through the cross-bars, and are there suitably fastened.

In the drawings I show screw-nuts for fastening the bolts above the cross-bars, which permit an adjustment of the center at any distance from the joists that may be desired.

The cross-bars through which the supporting-bolts of the center pass are provided with longitudinal slots, so that they may be used with centers of any desired width. The centers are provided with means for attaching ropes, so that they can be hoisted into position and lowered away when no longer needed.

In the drawings, Figure 1 is a plan or top view, showing one of the supporting-bolts in section. Fig. 2 is a vertical transverse section on the line 2 2 of Fig. 1.

A is the center, of which B B are the ribs, and C C the sheathing-boards. D D are the supporting cross-bars. Supporting-bolts E E, bolted to the bars F F, pass through the slots G G in the transverse supporting-bars D D, so as to be adjustable, and are there fastened in any suitable way. The ends of the transverse supporting-bars D D bear upon the blocks I I, which rest on the joists or floor-beams J J; or they may bear directly on the joists.

K indicates a brick arch built upon the center. L L are holes for hoisting or lowering the center by means of ropes.

I do not limit myself to any fixed number of supporting-bolts, as it is obvious I may increase or decrease their number, according to the weight of the center and superincumbent masonry.

It is also obvious that my invention can be used in laying horizontal concrete and masonry ceilings of any form or description.

It is also obvious that chains or cables might be used instead of rods.

In the old style of supporting arches by staging, after the staging is detached deflection often occurs so suddenly as to cause the top of the arch to crack, thus causing a great imperfection, because the weight does not rest on the beams until after the staging is removed, whereas in my improvement the weight always rests on the beams in proportion to the progress of the work, thus preventing any sudden deflexure, and imperfections do not occur.

Having described my invention, what I claim is—

1. A portable pendent center for temporary support of masonry, in combination with floor-joists, with suspending-rods, and with rod-supports supported by the upper sides of the joists, substantially as described.

2. The combination of the supporting screw-bolts and the slotted cross-bars, whereby adjustment to the different widths of centers is effected, substantially as described.

3. The combination of a portable pendent center and cross-beams, from which the center hangs, substantially as described.

4. The improved method of supporting arches hereinbefore described, which consists in suspending centers from above the arch, whereby scaffolding to support the centers from below is dispensed with.

In testimony whereof I have hereunto subscribed my name.

WILLIAM ERWIN.

Witnesses:

WM. AVERY,
CHARLES WARD.