J. M. Bull.

Stair Rail.

No. 12,300. Patented Jan. 23, 1855.

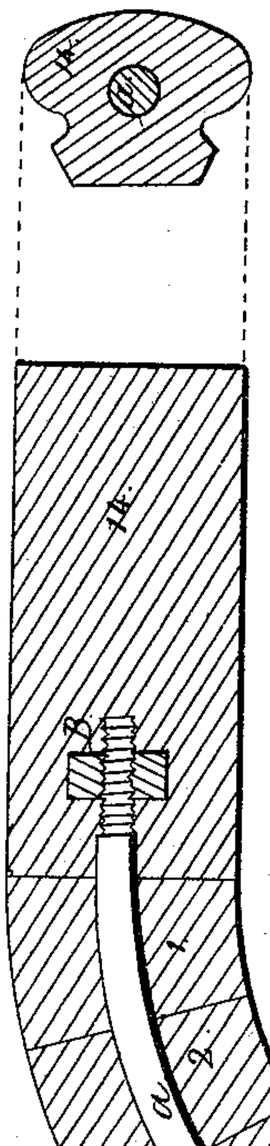


Fig. 1.

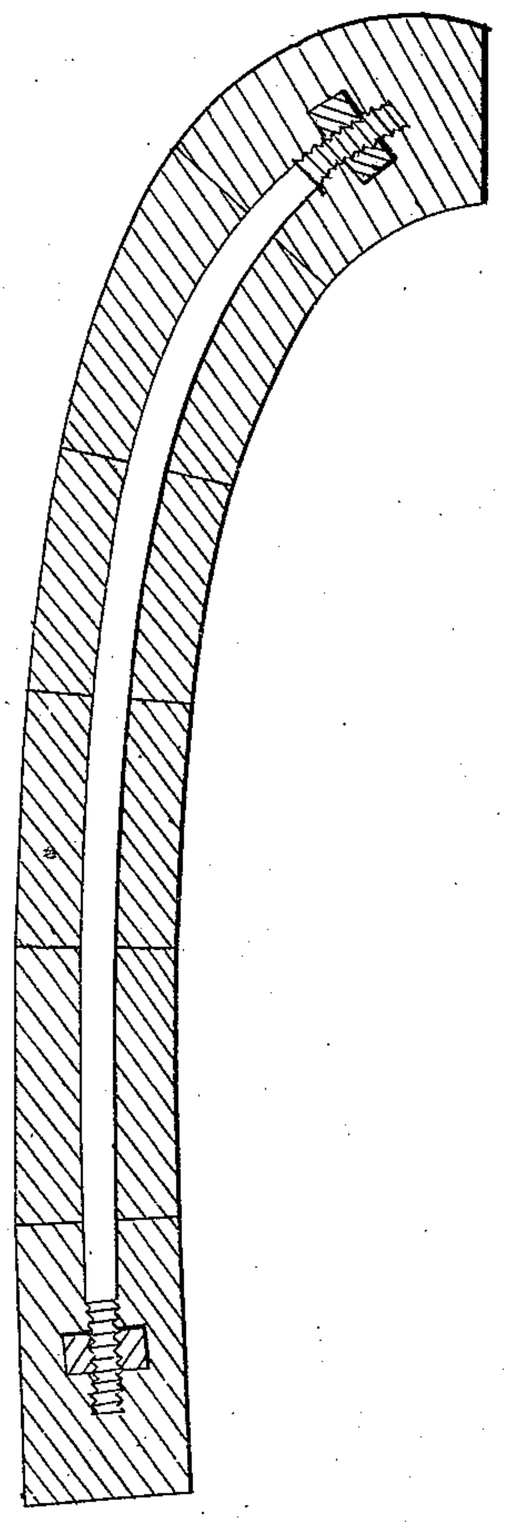
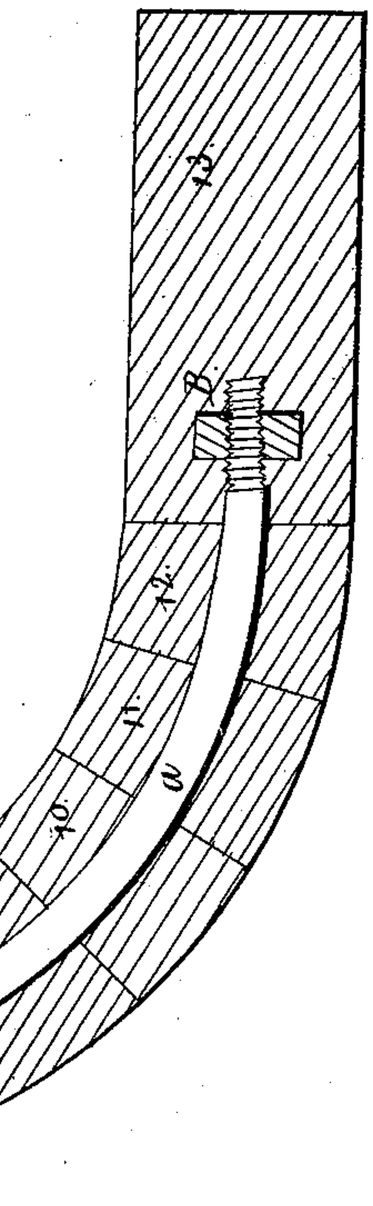


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN M. BULL, OF SIDNEY, OHIO.

HAND-RAIL FOR STAIRS.

Specification of Letters Patent No. 12,300, dated January 23, 1855.

To all whom it may concern:

Be it known that I, JOHN M. BULL, of Sidney, in the county of Shelby and State of Ohio, have invented a new and useful Improvement in Hand-Rails for Staircases and Similar Purposes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters and figures of reference marked thereon.

The nature of my improvement consists in forming the curves and bent portions of hand rails for stair cases and all other purposes of a similar character, out of a series of blocks, connected together at their joints, at suitable angles to obtain the required curve and all firmly secured together by a bolt of the proper curvature passing through their center and provided with a screw and nut at each end of the bolt, or any other mechanical contrivance equivalent.

To enable others skilled in the art to make and use my improvement, I will proceed to describe its construction and operation by referring to the accompanying drawings forming part of this specification and to the letters of reference marked thereon.

Similar letters refer to corresponding parts.

Figure 1 represents a semicircle of a hand rail intended for a stair case, showing the method of securing the blocks composing the rail by means of an iron rod. Fig. 2 represents a curved rail made after my improved plan, and Fig. 3 is a transverse sectional view of the rail.

Blocks 1, 2, 3, 4, 5, &c., compose that portion of the rail that forms the curve 13, and 14, are short pieces of the straight part of the rail. *a*, *a*, is an iron rod made to pass through the center of each block and provided with screws and nuts at each end for holding the whole together. This rod will always be bent or made into the required curve before the blocks are placed upon them, as is represented in the drawings Figs. 1 and 2. Railing made after this plan is stronger and easier made than where it has to be cut out of the solid block as usual, which is the advantage that I claim for my improvement in forming the rail out of blocks of wood or other material as represented in the accompanying drawings.

What I claim, as my improvement and desire to have secured to me by Letters Patent, is—

Joining a series of blocks of wood or other material together at such angles as will form any circle, or curve that may be required and secure the same together by means of a rod provided with a screw and nut at each end or any other mechanical equivalent, all as represented in the accompanying drawings and for the purposes substantially specified in the foregoing specification.

JOHN M. BULL.

Witnesses:

MARTIN BENSON,

L. W. SMITH.