

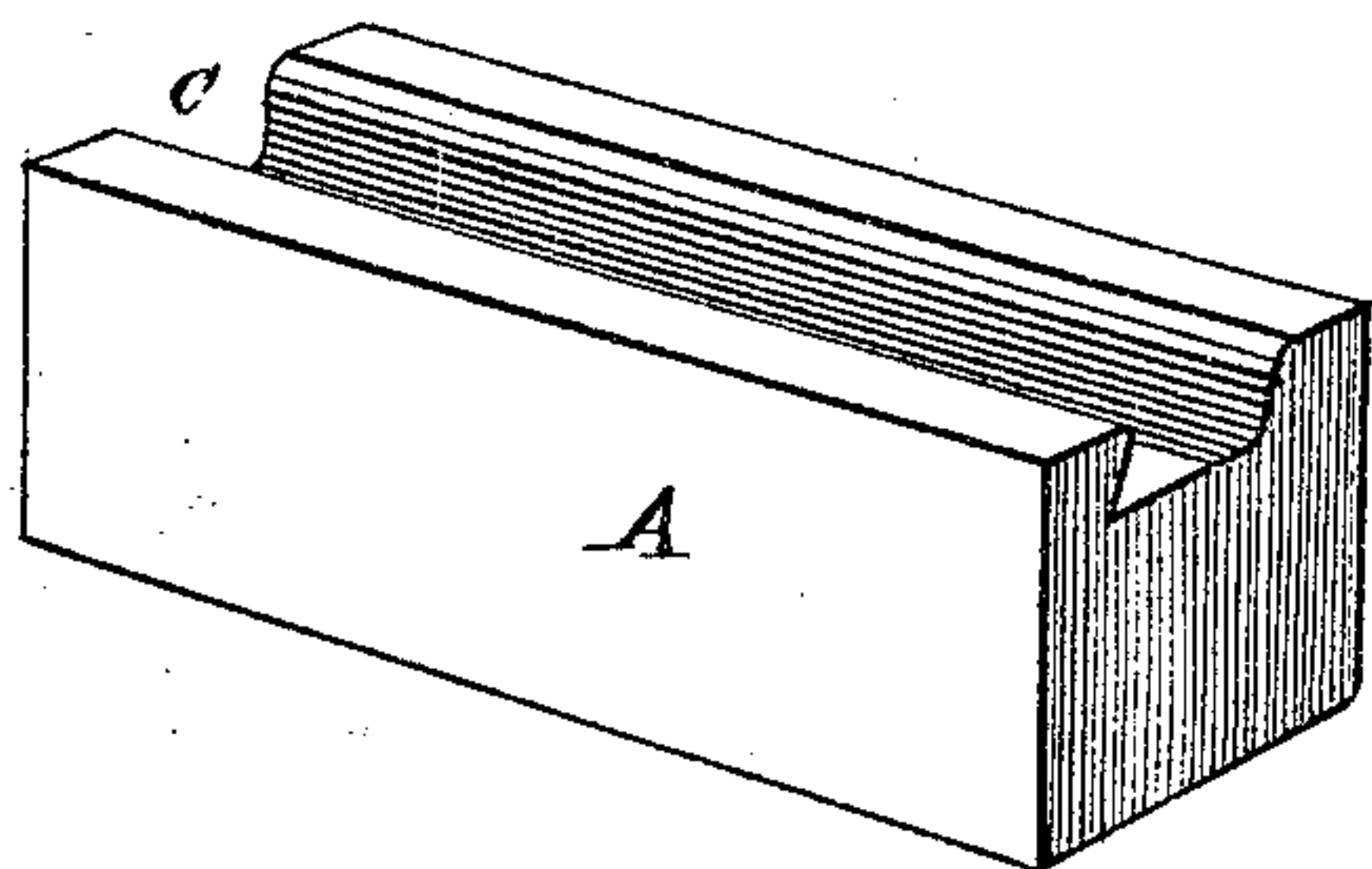
*R. Barton,*

*Groove Joint.*

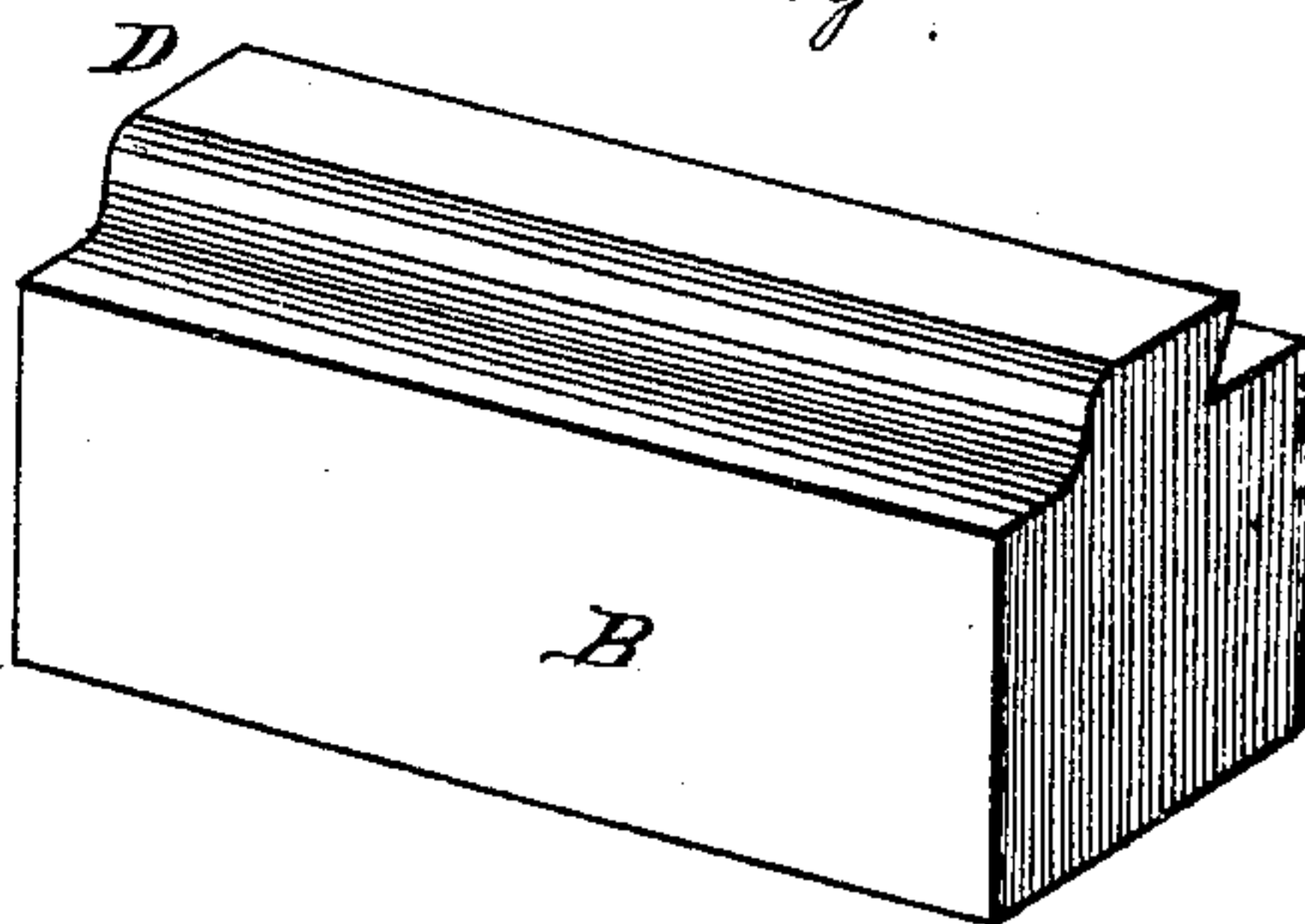
*No. 113,835.*

*Patented Apr. 18. 1871.*

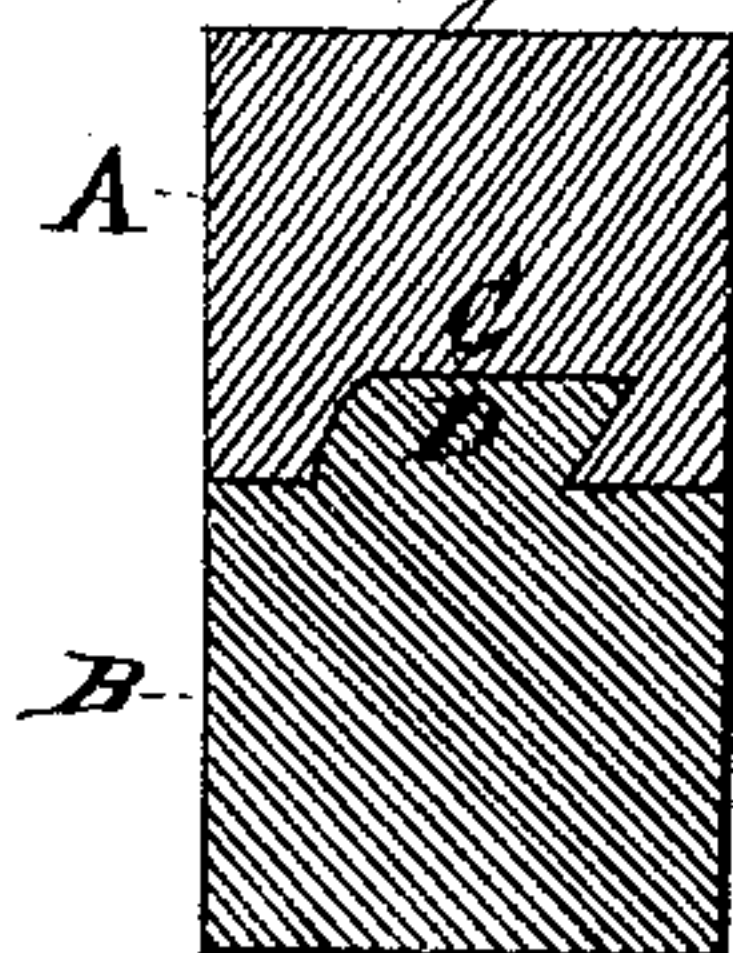
*Fig. 1.*



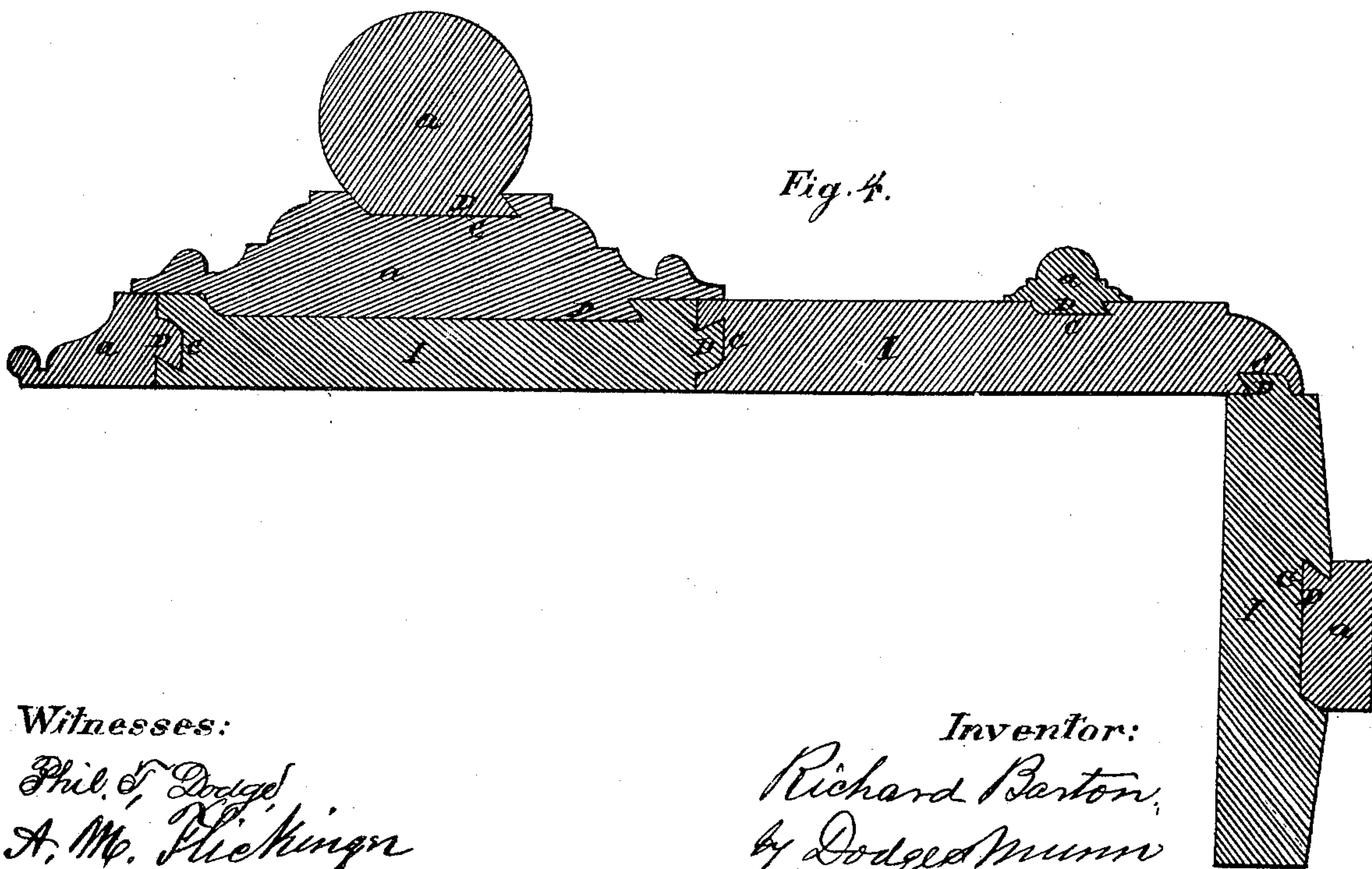
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Witnesses:*

*Phil. S. Dodge*  
*A. M. Pickings*

*Inventor:*

*Richard Barton,*  
*by Dodge & Munn*  
*Attys.*



# United States Patent Office.

RICHARD BARTON, OF NEW YORK, N. Y.

Letters Patent No. 113,835, dated April 18, 1871.

## IMPROVEMENT IN TONGUE-AND-GROOVE JOINTS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, RICHARD BARTON, of New York city, in the county of New York and State of New York, have invented certain Improvements in Tongue-and-Groove Joints, of which the following is a specification, reference being had to the accompanying drawing.

My invention consists in so forming the tongue and groove used in matching boards or similar wood-work in such a manner that the tongue, when properly inserted in the groove, shall be locked therein, thus holding the parts firmly together and preventing them from drawing apart or separating while in position, as hereinafter more fully explained.

Figure 1 represents a piece having the groove formed therein, shown in perspective;

Figure 2, a similar view of a piece having the tongue formed thereon;

Figure 3 is an end view of the two pieces united; and

Figure 4 is a view showing the application of my improvement in securing moldings, beading, &c.

In the ordinary method of matching flooring and similar wood-work a rectangular groove is cut in the edge of one piece and a corresponding tongue formed on the edge of the adjoining piece.

When thus made the tongue is to be entered in the groove, when the two pieces are arranged in the same plane, the tongue being crowded or driven straight into the groove.

It is obvious that with such a joint there is nothing to prevent the parts from being separated except the friction of the tongue against the sides of the groove, and that the tongue and groove have no tendency to close the joint by drawing the pieces closely against each other.

My invention has for its object the formation of a joint which shall be self-tightening, and which shall also form a lock, whereby the parts, when united, shall be held securely in place and prevented from being drawn apart or opening at the joint.

To accomplish this object I make the tongue D in the form of a hook, as shown in fig. 2, this tongue being formed on one side of a dovetail form, and on the other inclined and slightly rounded, as shown in figs. 2 and 3.

The groove is made of a corresponding form—that is to say, it is the exact counterpart of the tongue D, this groove C being represented in fig. 1.

When the tongue and groove are thus formed and the parts are united, as shown in fig. 3, it will be seen that the tongue D locks into the groove C in such a manner that the pieces are firmly secured each to the other.

In uniting the pieces the piece A, or that having the groove C in it, is first secured in place, and then the piece B is placed alongside of it, inclined at its rear edge, so as to permit the tongue D to enter the groove C when the piece B is crowded against the piece A, the piece B being brought down on a level or in the same plane with the piece A at the same time.

It will be seen that in doing this the tongue D will hook into the groove C and tend to assist in drawing the two pieces snugly together, thus making a very close and firm joint.

The most obvious application of this joint is in flooring, wainscoting, and similar work; but it is obvious, also, that it may be applied in a great variety of styles of wood-work, in cabinet-ware, and in the application of moldings, trimmings, &c., as illustrated in fig. 4, where it is shown applied to the union of the body-pieces I, and also to the securing of the moldings and ornamental pieces *a* thereon.

In flooring and all similar work it is obvious that with tongue and groove formed in this way there is much less danger of splitting off the tongue when the board is being forced into place than with the ordinary style, because the inclination is such that it permits the board to be turned or crowded down into position without straining the tongue or groove.

This form of tongue and groove can be made by machinery the same as the ordinary style, it only being necessary to change the form of the cutters and to have the board presented to them at the required angle.

In making this joint by hand-tools an extra tool will be required to complete the groove, by cutting under, to form the socket or angle for the point of the hook to fit into, and also to finish the under-cut side of the hook in the same manner.

The joint thus formed is very simple, and exceedingly efficient and useful in nearly all kinds of wood-work.

Having thus fully described my improvement, What I claim as of my invention, and desire to secure by Letters Patent, is—

The tongue and groove-joint for joining flooring, wainscoting, &c., consisting of the inclined or hook-tongue D formed on one edge of the board, and the corresponding groove C formed in the edge of the adjoining board, substantially as shown and described.

RICHD. BARTON.

Witnesses:

W. C. DODGE,  
PHIL. T. DODGE.