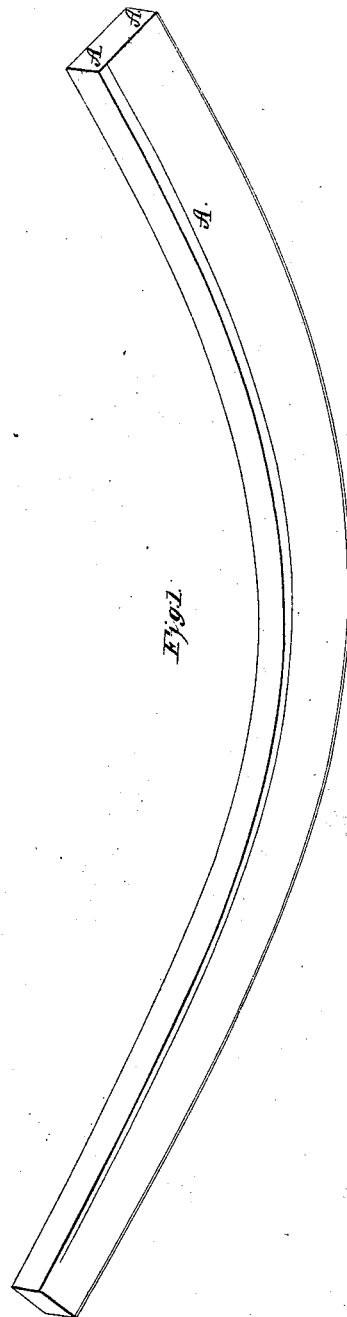


*J. W. Griffiths,  
Bending Wood,*

*N<sup>o</sup> 51,827,*

*Patented Jan. 2, 1866.*



*Witnesses:  
John Coon  
J. B. Coombs*

*Inventor:  
John W. Griffiths*

# UNITED STATES PATENT OFFICE.

JOHN WILLIS GRIFFITHS, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN WOOD-BENDING.

Specification forming part of Letters Patent No. 51,827, dated January 2, 1866.

*To all whom it may concern:*

Be it known that I, JOHN WILLIS GRIFFITHS, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Method of Preparing Beveled Frame-Timber for Ships and for other Purposes, by means of which the same may be bent to the form required, which method is denominated "Griffiths' Method of Bending Beveled Ship-Timber;" and I hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

Heretofore very great difficulties have attended all efforts to bend to required forms frame-timbers having beveled surfaces, these difficulties arising chiefly from the absence of any mode of securely holding in position such timbers during the process of bending. To remedy these difficulties and to render the operations always successful and certain is the object of my invention.

To enable others to practice my invention, I now proceed to give a full description of the same.

Figure 1 is a perspective view of the frame-timber of a vessel, the same being beveled and bent to a required form.

The timber is in the first place sawed straight

and rectangular, with two of its sides parallel to each other, while the other two sides may be sawed to any desired taper in the direction of its length. The two beveling saw-cuts A A (shown in the drawing) are then made, producing a slab or board on each of the molding sides of the timber. These saw-cuts are not extended quite to the end, thus allowing the timber to retain its rectangular form, while the slabs are retained in the place from whence they were sawed. The timber is then steamed and bent, with the slabs in position, and when cold the slabs, having served the purpose of bending, are split off. The timber, being now of the form and of the bevel required, is ready for use, as shown in the drawing.

What I claim as my invention, and desire to secure by Letters Patent, is—

The method of preparing beveled ship-timber for bending to forms required by sawing beveling slabs or boards from the sides of the timber, but not entirely severing the same therefrom, substantially as shown and described.

JOHN WILLIS GRIFFITHS,

Witnesses:

J. J. COOMBS,  
JOHN COON.