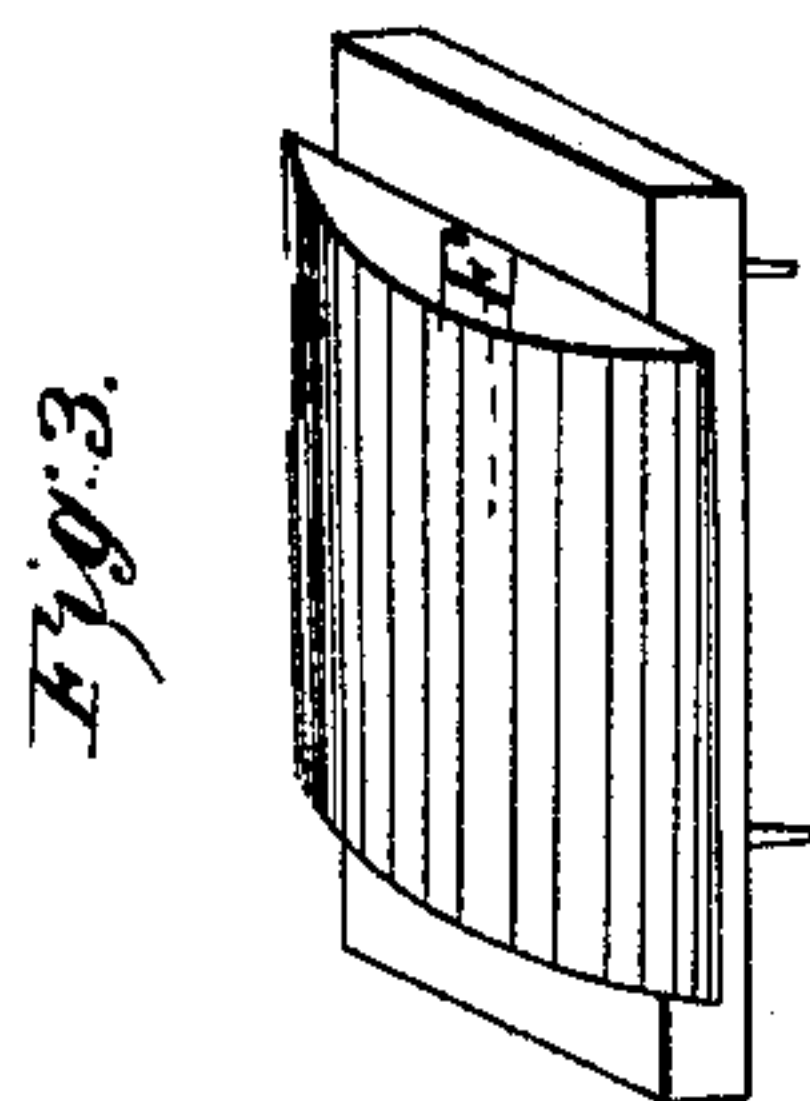
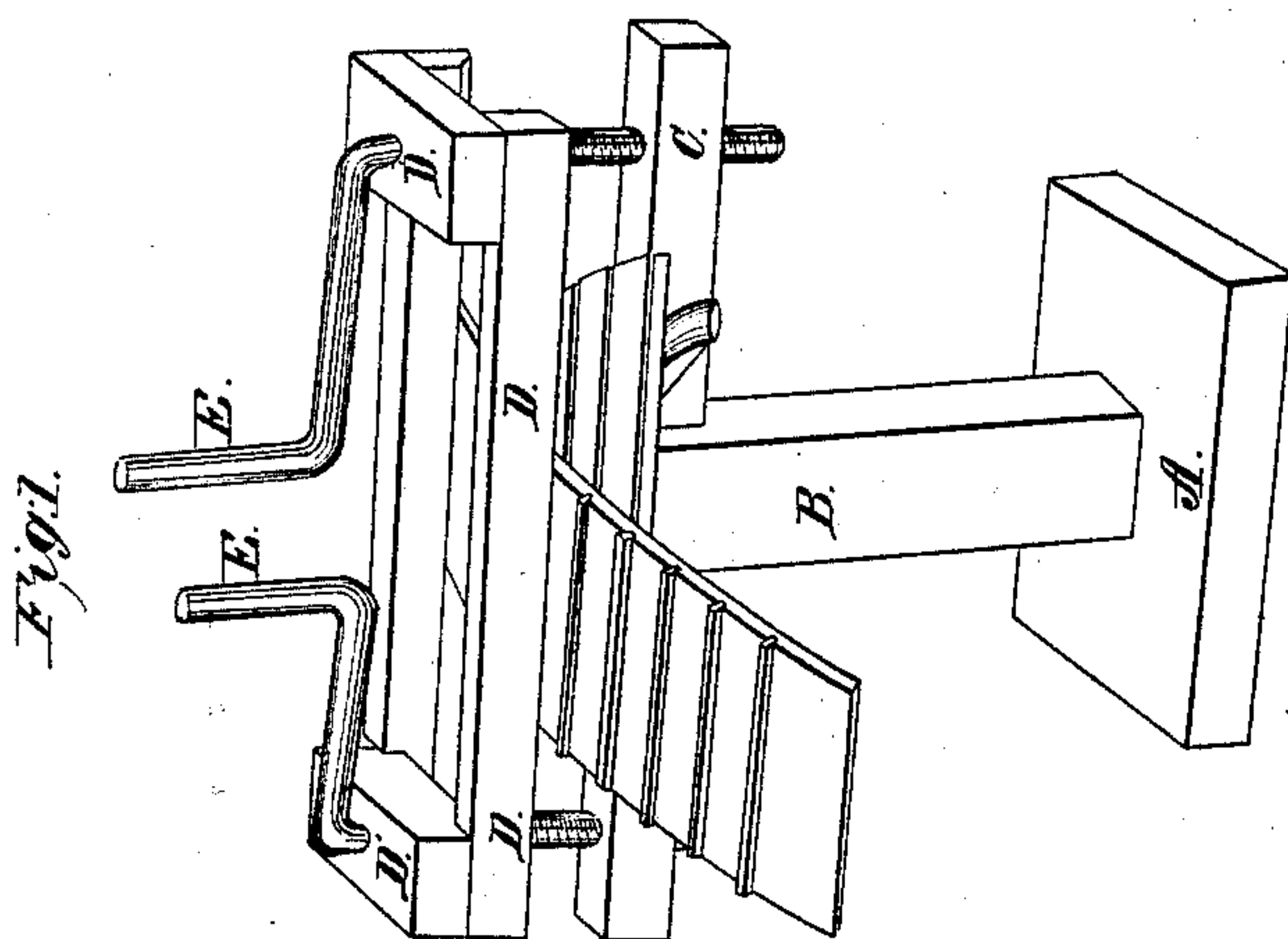
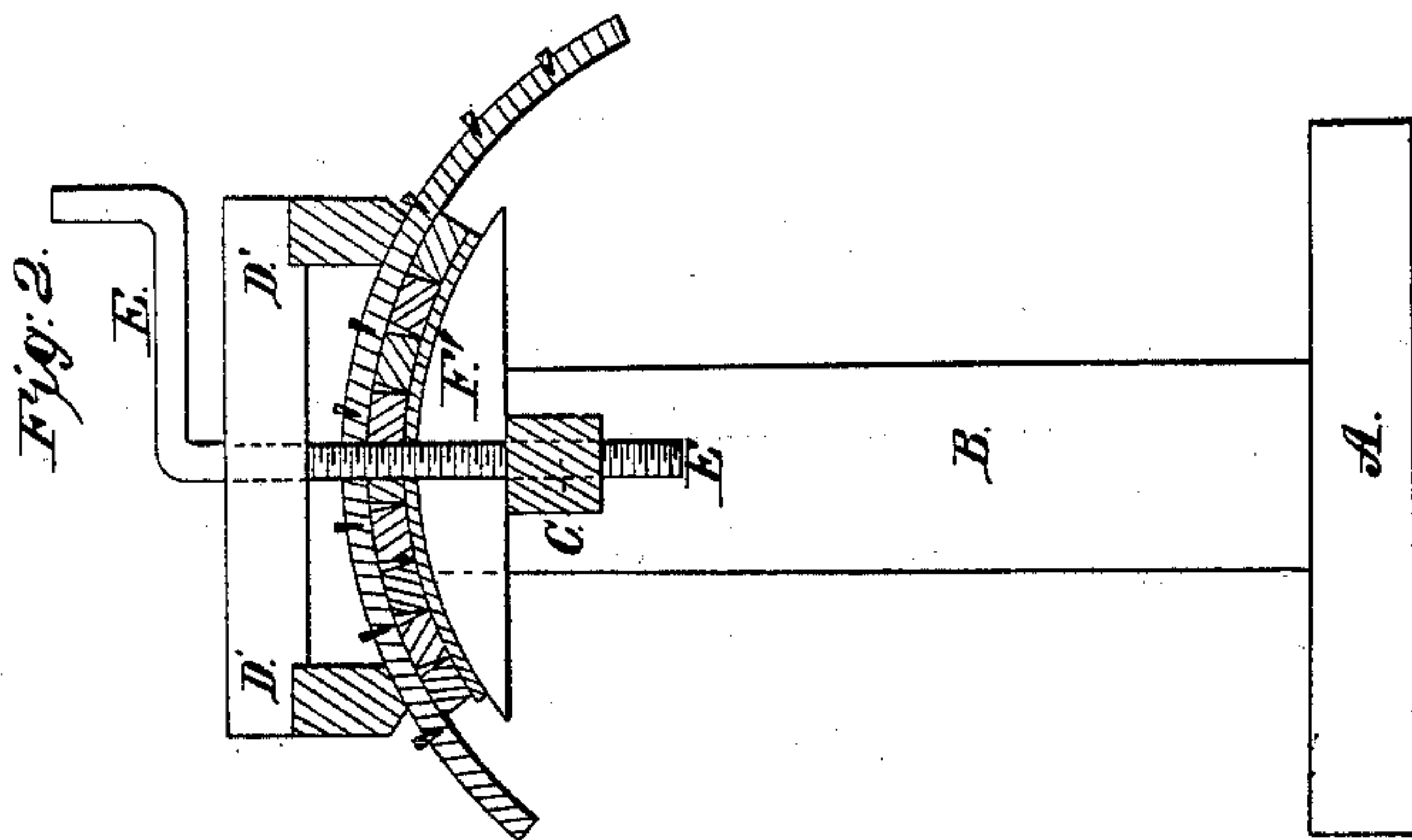


*J. F. Melcher,*

*Bending Wood.*

*N<sup>o</sup> 82,237.*

*Patented Sep. 15, 1868.*



*Witnesses:*

*E. F. Clauser.*

*A. Ruppert*

*Inventor:*  
*J. F. Melcher.*  
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# United States Patent Office.

JOSIAH F. MELCHER, OF BLOOMINGTON, ILLINOIS.

*Letters Patent No. 82,237, dated September 15, 1868.*

## IMPROVEMENT IN MACHINES FOR BENDING WOOD.

*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, JOSIAH F. MELCHER, of Bloomington, in the county of McLean, and State of Illinois, have invented a new and improved Machine for Bending String-Boards and other kinds of lumber; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a perspective view of the device.

Figure 2 is an end view, showing a board in the act of being bent, and showing also an end view of one of the removable forms on which such bending is done; and

Figure 3 is another form of table, and of a different construction and degree of curvature.

Similar letters denote corresponding parts in all the figures.

A is the base of the machine, and B is the column or post upon which the upper work rests, and which is firmly secured to the base, A.

C is a cross-beam, which may be of wood or iron, and which is secured to the top of the column B, and extends in either direction for a distance of, say, two to three feet, more or less. Through the outer ends of this beam, holes are bored, which have screw-threads cut in them to receive the screws E E. Upon the top of this beam, and arranged centrally between the screws, a table, F or F', is placed, as clearly shown in the drawings.

D is a framework, consisting of two parallel bars, placed in line with the bed or form F, and with the cross-beam C, and held together by cross-pieces D', through which the upper ends of the screws pass, the whole forming a frame, the sides of which are pressed down upon the board which is to be bent, thus compelling its inner surface to assume the curvature of the outer surfaces of the table or form, as clearly shown in figs. 1 and 2 of the drawings.

E E are screws which pass through the nuts formed in the cross-beam C, and are provided upon their upper ends with suitable handles for turning them, and with grooves turned in their surfaces within that portion of the same which is encompassed by the cross-piece D', which cross-piece has keys or wedges passing through it in such a manner that the edge of each key enters the groove in said screws, and thus the frame D D' is pressed down upon the work to be bent, or is elevated to allow other work to be placed within the machine.

F' is one of the tables or forms over which the material is to be bent. It may be constructed, as shown in fig. 1, so as to be capable of conforming to segments of different circles, or it may be rigid, as shown at E.

The operation of this device is as follows:

The diameter of the circle to which the string-board is to be bent having been determined, a table or former, which will give the desired form, is placed upon the cross-beam C, to which it is secured by bolts. The frame D is now raised to a height to admit of the placing of the material to be bent, which being placed, the screws are turned down, and the material is made to assume the required form. This operation being repeated for a few times, any desired length of board may be bent.

I have described my device as applicable to the bending of string-boards when made of wood; but it is apparent that it is equally applicable to the bending of sheet metal for the same purpose, and for bending wood or metal for other purposes.

This machine is simple and cheap, and may be made of wood or metal, as will best suit the constructor.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

The construction and arrangement of the cross-beam C, tables F F', and frame D D', substantially as shown and described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

JOSIAH F. MELCHER.

Witnesses:

H. BURR,

W. E. HUGHES.