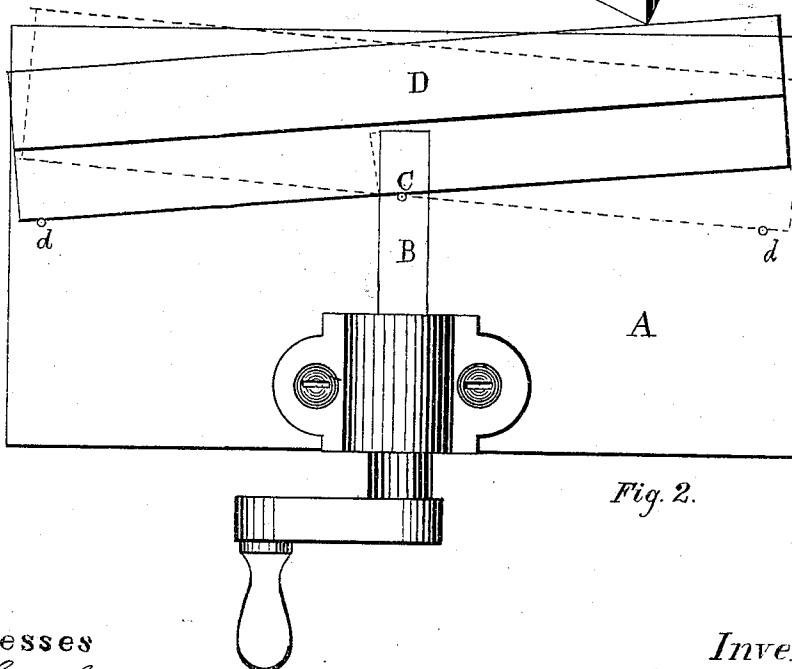
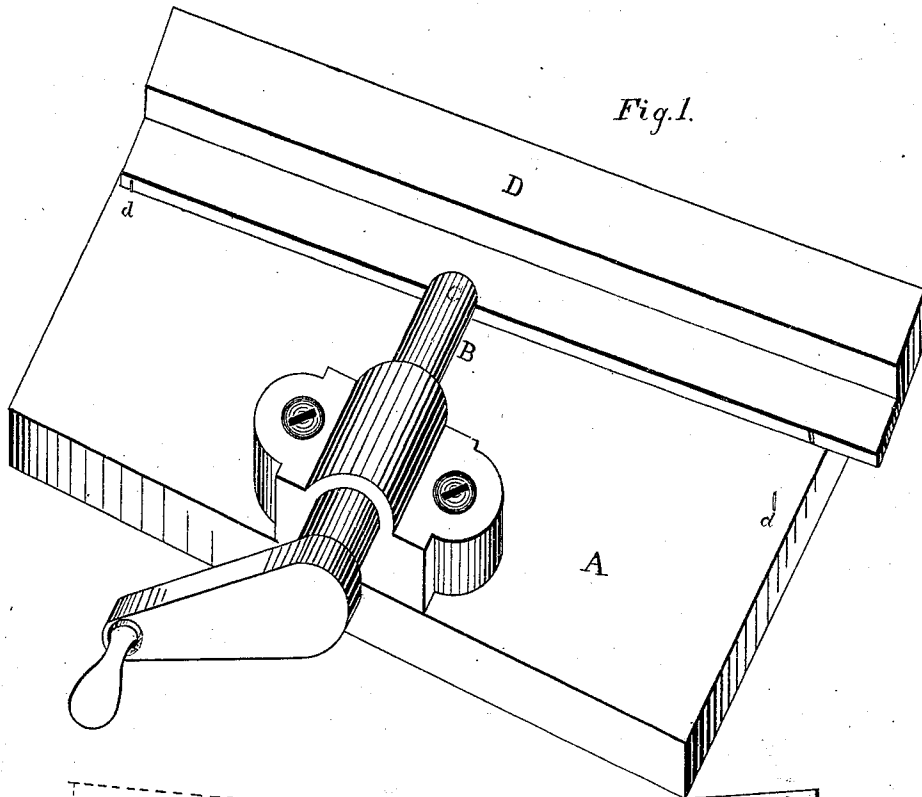


B. F. ALLEN.
Boring-Machines.

No. 148,277.

Patented March 10, 1874.



Witnesses
W. R. Singleton.
M. C. Chandler.

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UNITED STATES PATENT OFFICE.

BENJAMIN F. ALLEN, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BORING-MACHINES.

Specification forming part of Letters Patent No. **148,277**, dated March 10, 1874; application filed February 9, 1874.

To all whom it may concern:

Be it known that I, BENJAMIN F. ALLEN, of Boston, Massachusetts, have invented a new and useful Improvement in a Boring-Machine for Manufacturing Chairs and other Furniture, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a perspective view of my device. Fig. 2 is a top view of same.

My invention relates more particularly to the manufacture of chairs; and consists in a combination of devices for boring the holes in a peculiar form, as hereinafter explained.

In order to enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A represents a table or work-bench, to the side of which is secured a boring-tool, B, in any suitable bearings. This tool is provided with cutting-edges on its side, as well as on the end of the bit. Exactly under the longitudinal center of the shaft of the boring-tool, and at any desired point or distance from the end of the bit, I secure to the table or bench a stationary vertical pin, C. This pin, being under the exact center of the line of the shaft, serves as a pivot, on which the frame D is caused to move as it passes from a line at right angles to the line of the boring-tool to any desired angle, catching against the stops *d d* alternately. On the frame D is placed the article to be bored—say, for instance, the leg of a chair. When secured in position, the frame is passed up against the central pin C and there held until the bit has

bored a hole of the desired depth. Then, by turning the frame very slightly on the central pivot C, the bit of the boring-tool will cut the hole on inclined sides and wider at the bottom than at the top.

It is evident, from the description I have given of the location and manipulation of several parts of my invention, that the hole at its outer point will remain round, and not be enlarged by the movement of the frame D, while the bottom of the hole will remain of the same size with the opening in one direction, but will be elongated in the opposite direction; and such is the object sought to be accomplished by my invention. A hole thus made enables the workman to put his work together in such a manner that it cannot be forced apart.

I do not confine myself to any particular form of table or bench, as the boring-tool might be fastened in many convenient places without departing from the spirit of my invention, which consists, essentially, in the pivot under the exact central line of the shaft of the boring-tool, so as to avoid enlarging the hole at its opening, and to elongate it at the bottom, as before stated.

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

In combination with a boring-tool, B, and table A, the frame D and central pivot C, all arranged and operating substantially as and for the purpose set forth.

BENJ. F. ALLEN.

Witnesses:

THOMAS C. CONNOLLY,
HENRY H. BURTON.