

(No Model.)

2 Sheets—Sheet 1.

C. LEHMANN.
PLAITING APPARATUS.

No. 437,212.

Patented Sept. 30, 1890.

Fig. 1.

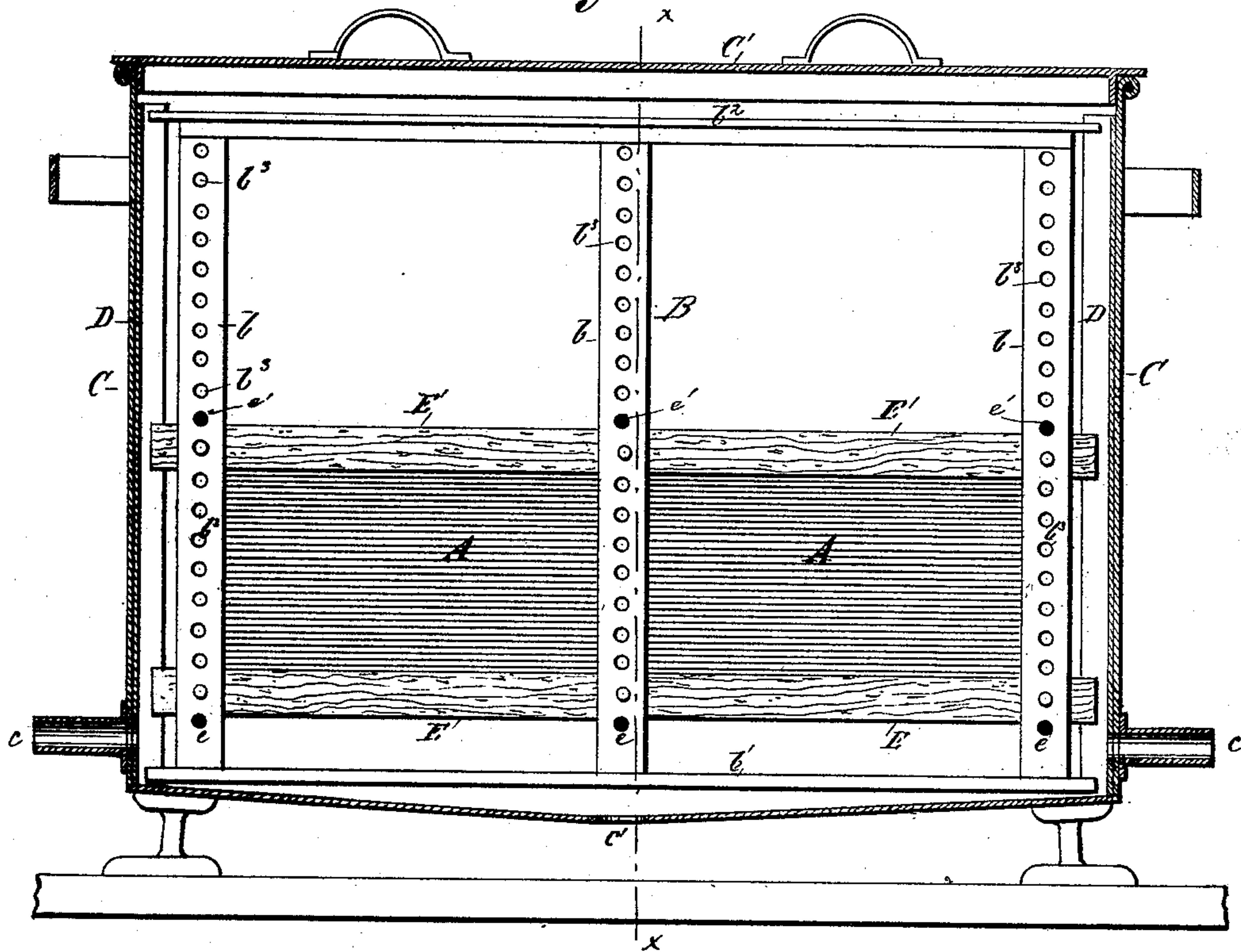
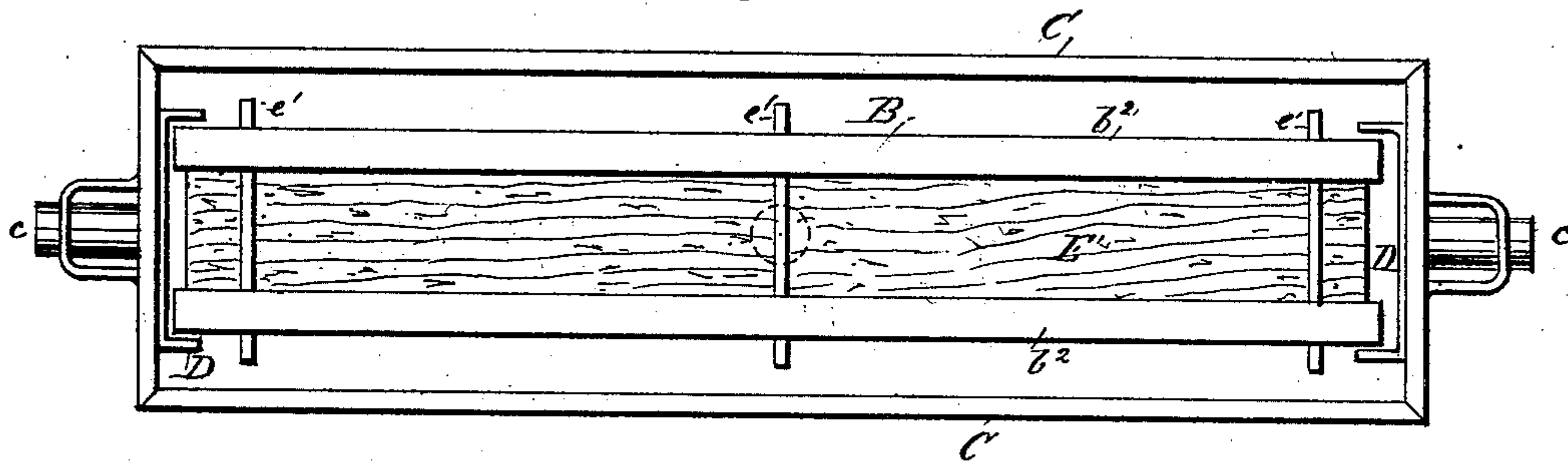


Fig. 2.



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Carl Lehmann
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Fig. 3.

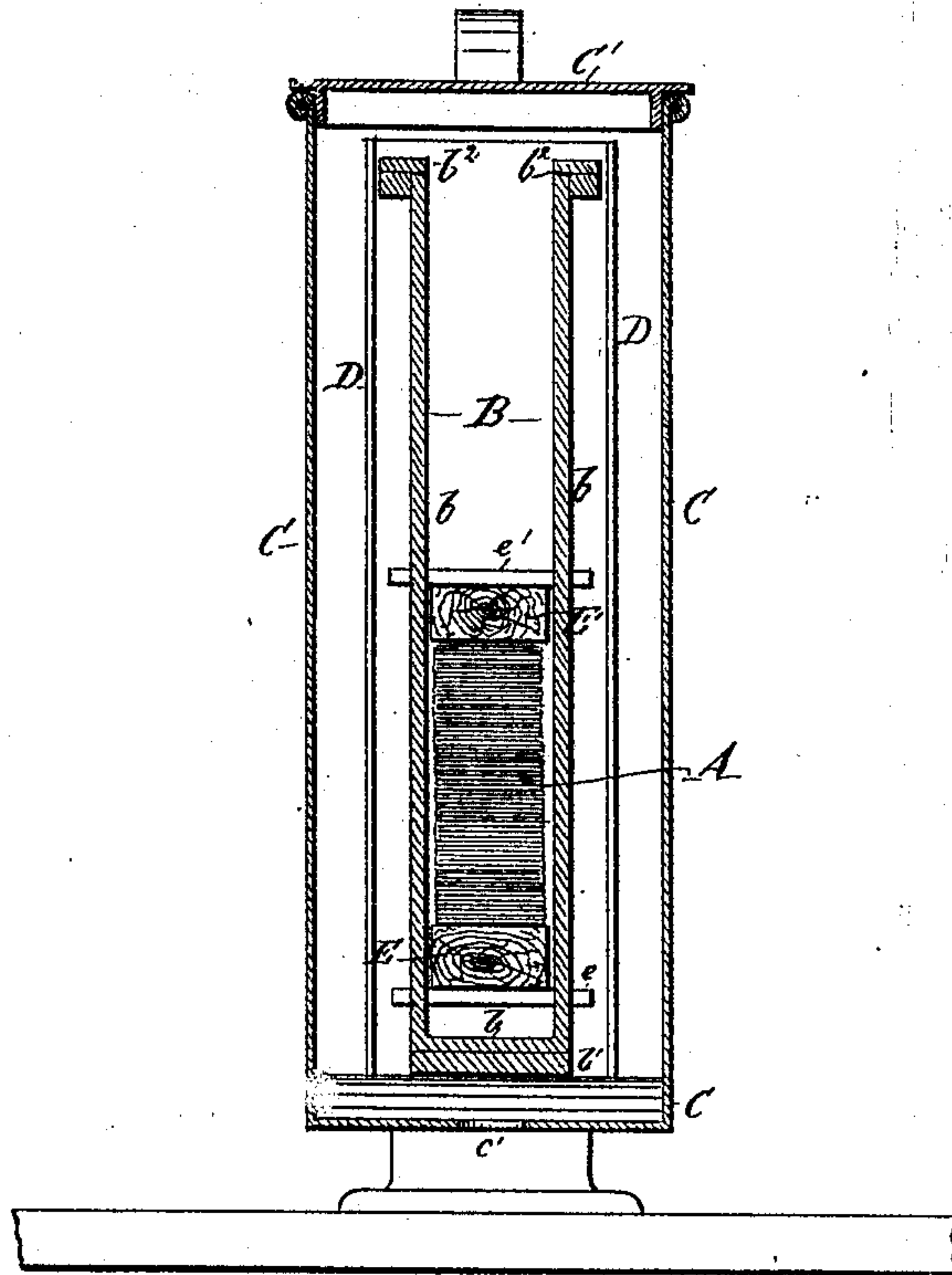


Fig. 4.

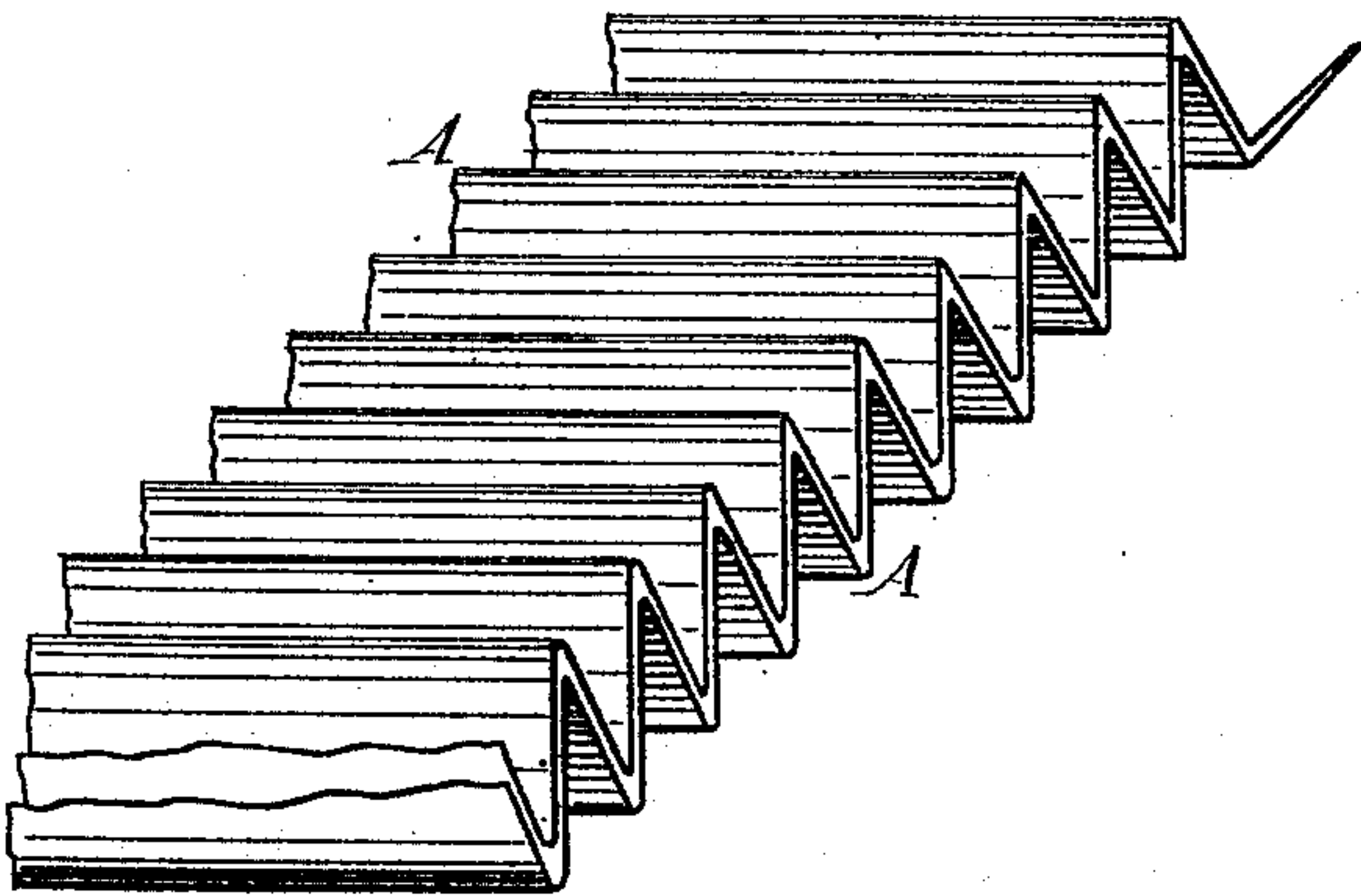
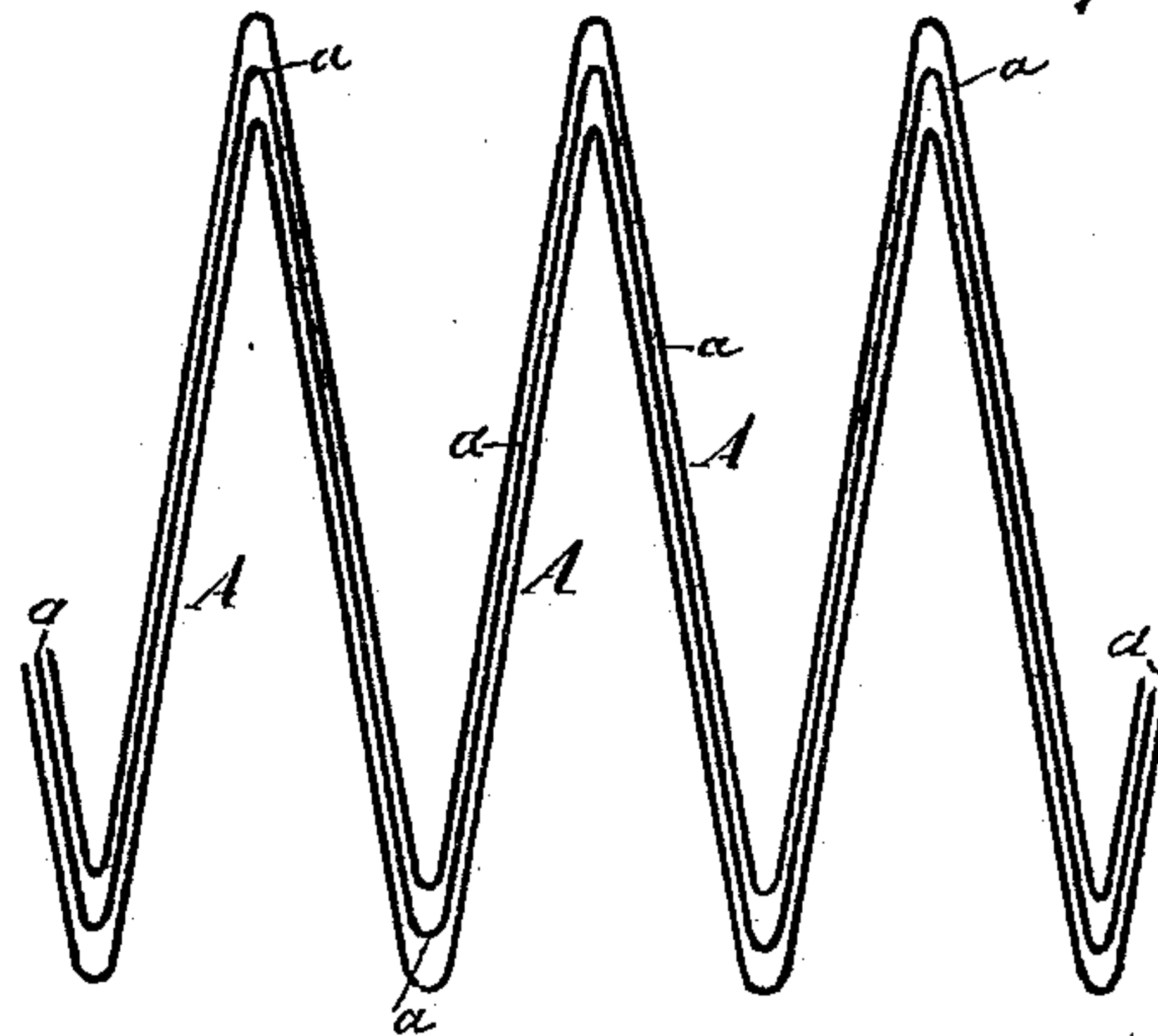


Fig. 5.



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UNITED STATES PATENT OFFICE.

CARL LEHMANN, OF NEW YORK, N. Y.

PLAITING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 437,212, dated September 30, 1890.

Application filed May 6, 1890. Serial No. 350,811. (No model.)

To all whom it may concern:

Be it known that I, CARL LEHMANN, a citizen of Germany, residing at New York, in the county and State of New York, have invented new and useful Improvements in Apparatus for Making Plaitings in Textile Fabrics, of which the following is a specification.

My invention relates to an improved apparatus for making plaitings in textile fabrics; and the invention consists of an apparatus of the construction hereinafter described, in combination with a pattern-sheet folded in the shape of accordion-bellows to receive the fabric, and pressed into the said frame, where the fabric within the pattern-sheet is submitted to the action of steam.

In the accompanying drawings, Figure 1 represents a front view of my improved apparatus for making plaitings in fabrics, the steam-box being in vertical section. Fig. 2 is a top view of the apparatus. Fig. 3 is a vertical section on line $x x$, Fig. 1. Fig. 4 is a perspective view of the pattern-sheet; and Fig. 5 is a cross-section of the same with the fabric applied thereto, drawn on a larger scale.

Similar letters of reference indicate corresponding parts.

A in the drawings is a pattern-sheet, which is preferably made of stiff paper or parchment and folded in the shape of accordion-bellows, as shown in Figs. 4 and 5.

B represents a frame composed of two, three, or more U-shaped ribs b , screwed or otherwise fastened to a base b' in such a manner that spaces between the ribs are formed. The shanks of the ribs are provided with guide-holes b^3 , and to the upper ends of the same slats or bars b^2 are applied, by which the whole frame receives a certain rigidity. All the parts of the frame are made of wood or metal, as desired.

C represents a steam-box, preferably made of sheet metal, which has one or more openings c for the entrance of the steam, and an opening c' in the bottom for conducting off the condensed steam.

To the inside of the side walls of the steam-box U-shaped guide-pieces D may be applied to hold the frame B within the steam-box in proper position.

Through the lowest or other corresponding

holes b^3 of the ribs b pins or bolts e are pushed, and upon these pins a wooden beam E is laid, between which and a second beam E' the pattern-sheet and fabric are placed, the upper beam E' being held in position by pins or bolts e' , pushed through corresponding holes in the ribs b .

My improved apparatus operates in the following manner: The pattern-sheet A is spread on a plate and the fabric a placed on the same, so that one-half of the sheet is covered by the fabric, and the free half of the pattern-sheet is then spread back and on the fabric, so that the latter is entirely covered by the sheet. Both the pattern-sheet and the fabric are then folded together, as shown in Fig. 5, and placed in upward position on the beam E within the frame B, as shown in Figs. 1 and 3. The second beam E' is then laid on top of the pattern and fabric and the latter pressed together, either by hand or by screws or other means (not shown in the drawings) applied to the beam E', and, finally, the pins or bolts e' are pushed through corresponding holes b^3 in the ribs b , whereby the pattern and fabric are held between the beams E and E'. The frame B is then inserted into the steam-box C and held therein in position by the lateral guide-pieces D. After this has been done, the outlet-hole c' in the bottom of the box is closed, and a cover C' applied to the box. Then steam from a boiler is conducted by means of rubber pipes, or otherwise, through the inlet-holes c into the steam-box and the fabric, inclosed by the pattern-sheet, submitted to the action of the steam for a certain time. The frame B is then taken out and the pattern-sheet and fabric dried within the frame. When the pattern-sheet is finally taken from the fabric, the latter keeps permanently the plaitings imparted to the same by the process described.

By my apparatus any plaitings can be imparted to fabrics in a very simple manner, and the fabrics do not lose their finish, which is the case by the application of most of the plaiting-machines now in use, as these machines work with dry heat.

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

In an apparatus for making plaitings in

textile fabric, the combination of a frame of
two or more U-shaped ribs secured to a base,
with a beam resting between the U-shaped
ribs on pins pushed through guide-holes in
5 the said ribs, and a pattern-sheet folded in
the shape of accordion-bellows to receive the
fabric, and pressed between the said beam
and a second beam within the U-shaped ribs,
the second beam being held in position by

pins also pushed through guide-holes in the 10
U-shaped ribs, substantially as shown and
described.

New York, N. Y., April 24, 1890.

CARL LEHMANN.

Witnesses:

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JNO. J. POWERS.