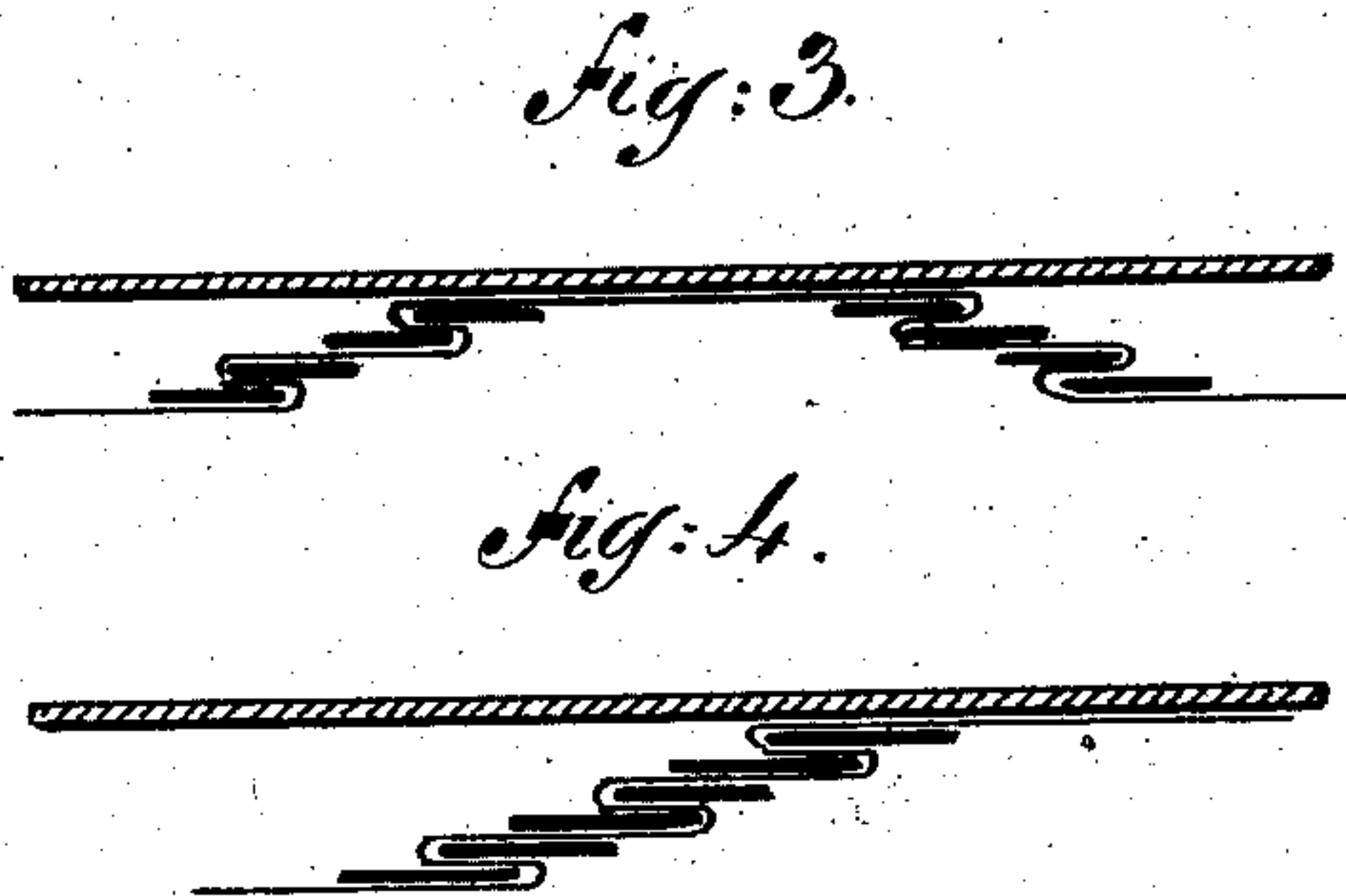
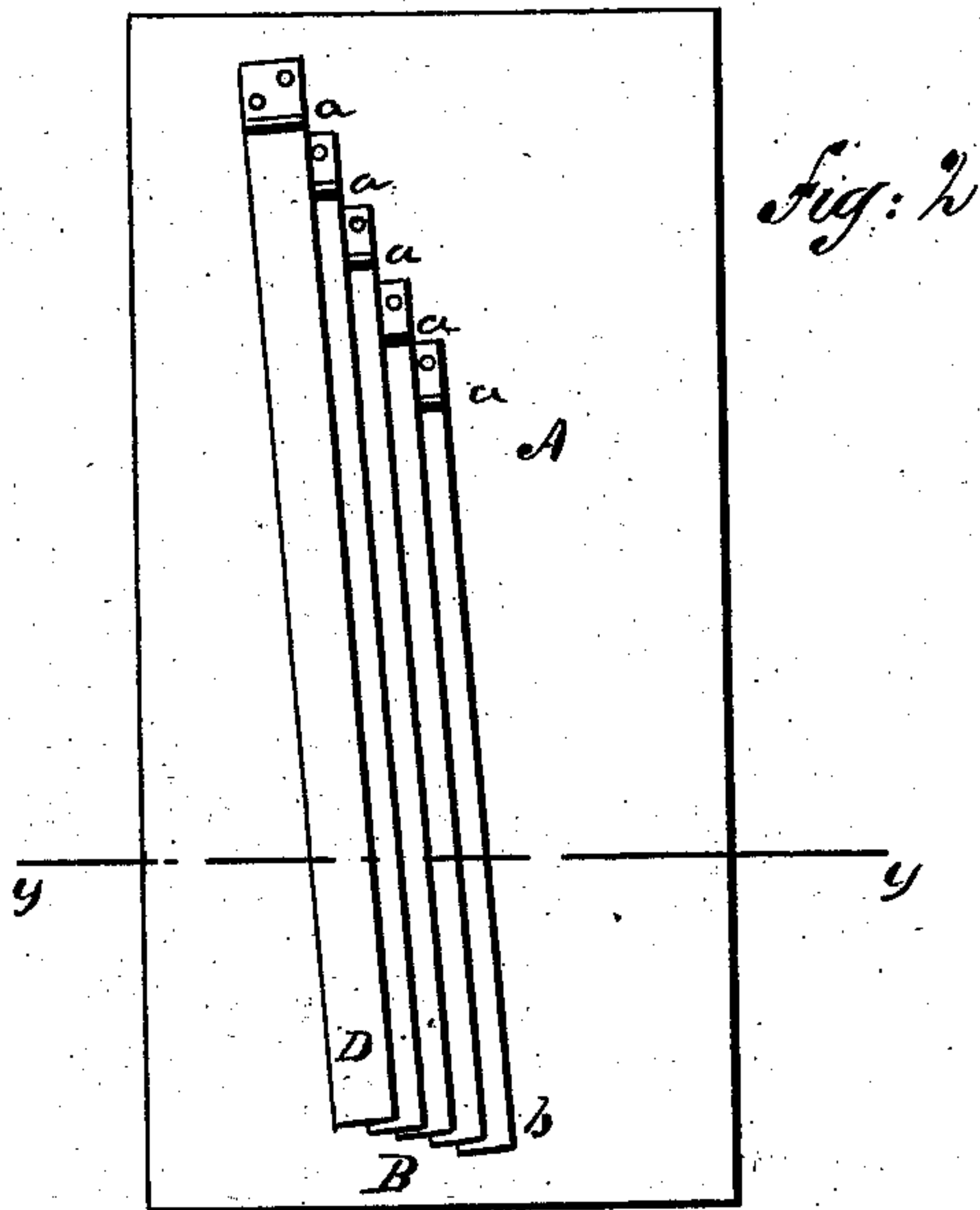
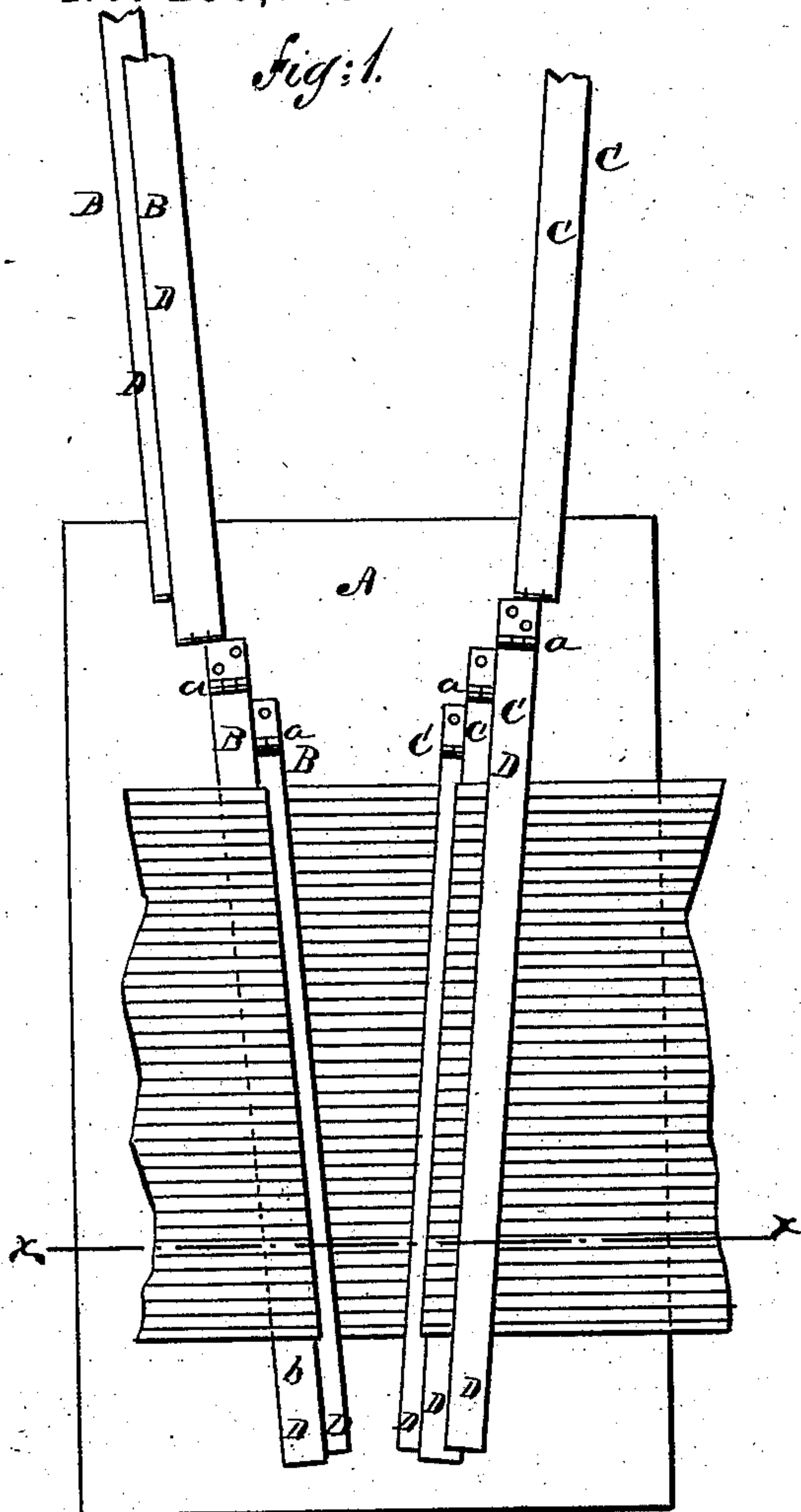


(No Model.)

E. L. SMITH.  
PLAITING DEVICE.

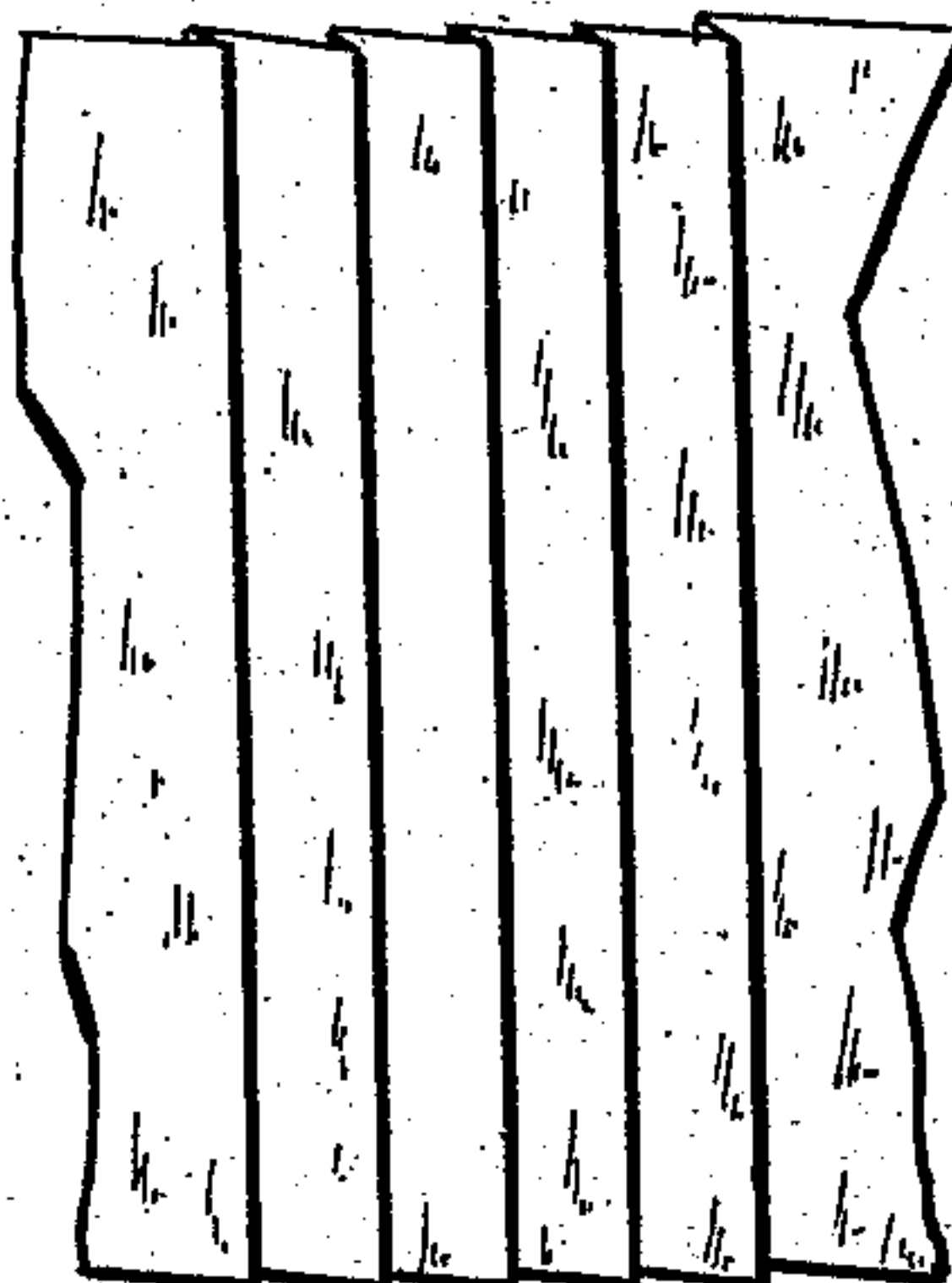
No. 290,129.

Patented Dec. 11, 1883.



*Fig: 5.*

*Fig: 6.*



WITNESSES:

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BY

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# UNITED STATES PATENT OFFICE.

EMMET L. SMITH, OF JACKSON, MICHIGAN, ASSIGNOR TO CHARLES W. HIGBY, OF SAME PLACE.

## PLAITING DEVICE.

SPECIFICATION forming part of Letters Patent No. 290,129, dated December 11, 1883.

Application filed September 3, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, EMMET L. SMITH, of the city and county of Jackson, State of Michigan, have invented a new and useful Improvement in a Plaiting Device; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying sheet of drawings, forming part of this specification.

This invention is in the nature of an improvement in plaiting devices; and the invention is a plaiting device consisting of a series of plaiting-blades hinged or otherwise suitably secured to a foundation board or table, as is more particularly described hereinafter.

In the accompanying sheet of drawings, Figure 1 is a plan or top view of my device with fabric applied; Fig. 2, a plan view of single set of plaiting-knives; Fig. 3, a cross-section in line *x x*, Fig. 1; Fig. 4, a cross-section in line *y y*, Fig. 2; Fig. 5, fabric with conical plaits; Fig. 6, fabric with straight plaits.

Similar letters of reference indicate like parts in the several figures.

This invention is designed to facilitate the plaiting of fabrics of various kinds, particularly such as are employed in the construction of bustles, in which the plaits gradually taper from top to bottom, thereby adding to its symmetrical appearance.

In factories where large quantities of plaited goods are manufactured, without some special device it would be impossible to plait the goods uniformly or quickly. Therefore to arrive at this result I secure to the top of a table or foundation-board, A, by hinged joints or other suitable means, a series, B, and a series, C, of metal blades D. These blades are preferably made from thin steel, but may be of other material, and they are secured to the foundation-board A, so that each blade of the series will overlap, to some extent, the blade next beneath it, and each blade is, by a hinge, *a*, or by some other yielding joint, enabled to turn back from the foundation-board A, and again brought to its position on the surface of the board. The numbers of these plaiting-blades in the series will be regulated by the number of plaits that it is designed to make

in the fabric, and the arrangement of the blades in relation to each other and to each of the series will be governed by the shape it is intended these plaits shall assume. To that end the blades may be arranged to incline or otherwise.

In the drawings the blades are represented in the position to produce tapering plaits.

Now, when my device is substantially in this way constructed, it is operated by turning all of the several plaiting-blades D back from the foundation-board A, as shown. The fabric to be plaited is next laid on the surface of the board A, and the first blade, *b*, of the series is brought down upon the fabric, as shown in Fig. 1. By hand the fabric is then folded over this first blade. A second blade, *c*, is next brought down, and the fabric folded in a reverse direction over this second blade. The third blade is then brought down, the fabric folded in a direction reverse to the last-named fold, and so on until each blade of the entire series has been brought onto the fabric, the fabric being folded alternately right and left over the several blades, each forming a plait. The blades of the next series are in like manner brought down and the fabric folded to form the plaits of the second series. The folds may, if desired, when all are completed, be pressed with a hot iron. When the plaits are completed, the fabric is withdrawn from beneath the blades and the operation finished.

By placing the blades in groups, as shown in the drawings, the center plait, E, or the plait between the two groups, may be broader than the other plaits, producing thereby a pleasing effect.

As is obvious, instead of arranging the blades in two or more groups, they may be arranged in a single group, and in that way produce plaits of equal size and uniformity throughout; or the blades may be arranged in several groups, so as to form between each group of blades a plait of varying size.

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

1. A device for plaiting fabrics, consisting of a series of blades secured to a suitable foun-

2. dation by hinges or flexible joints, the several blades overlying each other to some extent, substantially as shown and described. arranged in two or more separate groups, as and for the purpose described.

5 2. In a device for plaiting fabrics, a series of blades secured to a suitable foundation by hinges or flexible joints, the several blades overlapping each other to some extent and

EMMET L. SMITH.

Witnesses:

W. J. REYNOLDS,

T. W. CHAPIN.