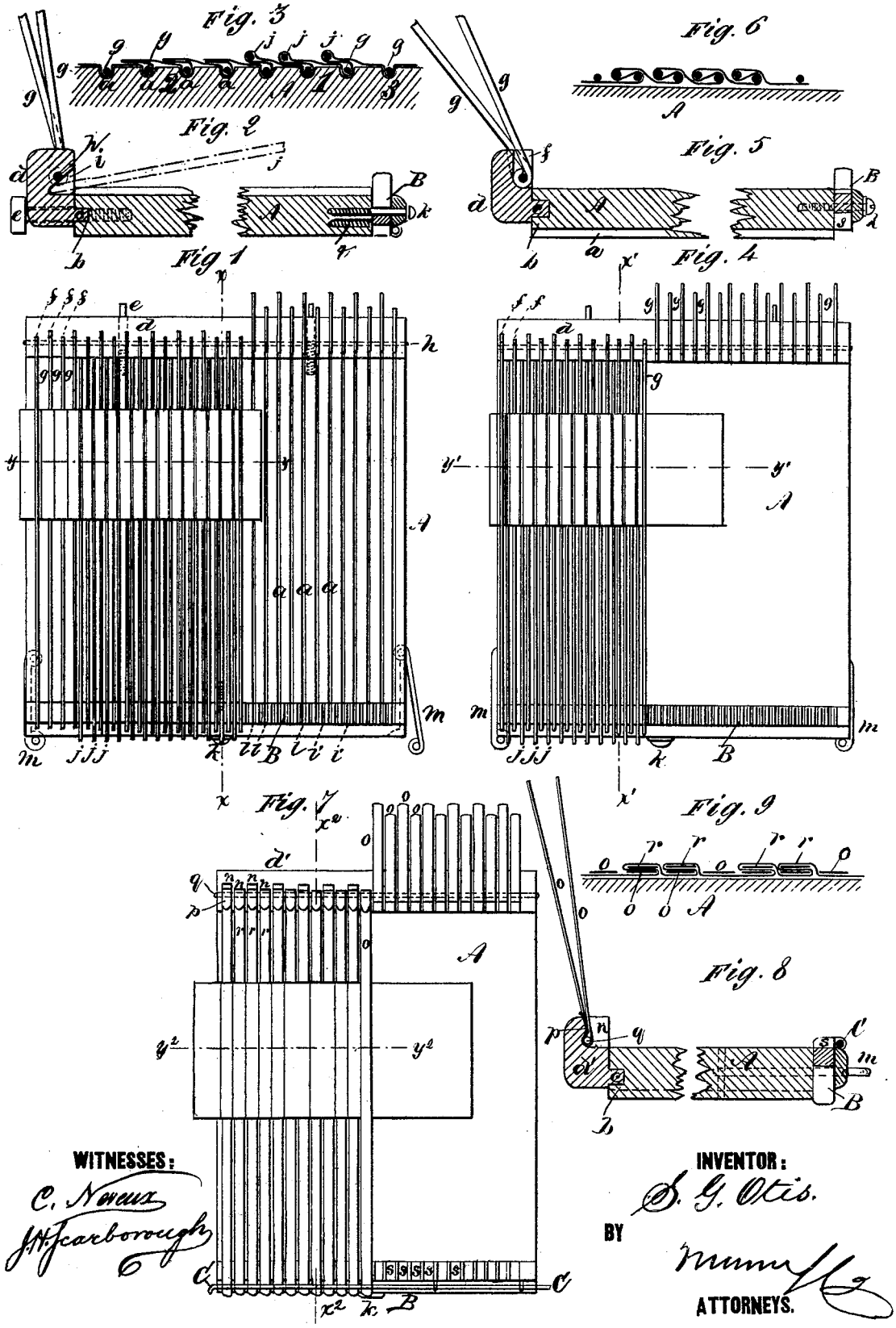
S. G. OTIS.

PLAITING-BOARD.

No. 188,937. Patented March 27, 1877.



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IMPROVEMENT IN PLAITING-BOARDS.

Specification forming part of Letters Patent No. **188,937**, dated March 27, 1877; application filed February 10, 1877.

To all whom it may concern:

Be it known that I, SAMUEL G. OTIS, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and Improved Plaiting-Board, of which the following is a specification:

Figure 1 is a view of the grooved side of my improved plaiting-board. Fig. 2 is a longitudinal section on line *x x* in Fig. 1. Fig. 3 is a transverse section on line *y y* in Fig. 1, showing the formation of different styles of plaits on the grooved side of the board. Fig. 4 is a view of the plane side of the board, showing the position of the round wires. Fig. 5 is a longitudinal section of the same, taken on line x^1 x^1. Fig. 6 is a transverse section taken on line y^1 y^1 in Fig. 4. Fig. 7 is a view of the plane side of the board, showing flat wires or springs. Fig. 8 is a longitudinal section on line x^2 x^2 in Fig. 7. Fig. 9 is a transverse section on line y^2 y^2 in Fig. 7.

Similar letters of reference indicate corresponding parts.

My invention relates to apparatus for forming different styles of plaits for trimmings; and it consists in the combination of hinged round and flat wires with a board grooved upon one side and plain upon the other, and in certain novel features, that will be hereinafter more fully described.

Referring to the drawing, A is the board, which is plain on one of its sides, and provided with grooves *a* upon the other. It is also grooved at *b* in one of its edges for receiving the tongue *c* of the slotted piece *d*. The piece *d* is secured to the edge of the board by one or more buttons, *e*, attached to the heads of screws that pass into the edge of the board. The slots *f* of the piece *d* are for receiving the eye formed on the end of the plaiting-wires *g*, which turn on, and are retained by, the wire *h*, which runs transversely through the slots *f*. Each alternate slot *f* is cut back or made wider, so that the alternate wires, when thrown back as shown in Fig. 2, are in different planes. Triangular recesses *i* are formed in the part *d*, between the slots *f*, for receiving the ends of the detached intermediate wires *j*, used in forming the plaits. B is a slotted bar, pivoted on the screw *k* at the edge of the board opposite the groove *b*. The slotted portion of the bar B projects upward above the face of the board A, and its slots *l l'* are equal in number to the hinged and detached wires. Alternate slots *l* of the bar B are opposite the grooves *a*, and the slots *l'* are opposite the spaces between the grooves *a*.

The operation of my invention as thus far described is as follows: The goods to be plaited are laid upon the board, and one of the wires *g* is brought down into a slot, *l*, of the bar B; this presses the goods into one of the grooves *a*. One of the wires *j* is then passed under the goods and over the wire *g*, carrying the goods with it, and its inner end is placed in the recess *i*, as shown in Fig. 2. The outer end of the wire is then placed in the slot *l'*, opposite the recess *i*, bringing the wires *g* and *j* into the position shown at 1 in Fig. 3, and parallel to each other. The wires *j* are withdrawn when the board is full, and the goods are pressed, as shown at 2 in Fig. 3. The part D and the wires are now removed, leaving the goods on the board as pressed. The goods are now removed and the part *d* replaced, when the operation is repeated.

If desired, the cloth may be simply beaded or fluted by pressing it into the grooves of the board by the wires *g*, as shown at 3 in Fig. 3, and pressing it with a hot iron.

When it is desired to form plaiting on the plain side of the board, the position of the part *d* is reversed, so that the wires *g* may fold down on the plain side, and the bar B is turned on its pivot *k*, being first released from the clasps *m*, by which it is also secured after it is turned, as shown in Figs. 4 and 5.

The operation is now proceeded with in the same way as in the case of the grooved side of the board.

In Fig. 7 the part *d'*, which fits the groove *b* in the edge of the board in the same manner as the part *d*, is provided with slots *n*, for receiving the flat wires or springs *o*, which have formed upon them hooks or loops *p*, through which the wire *q* passes, and the ends of which project sufficiently to receive ends of detached springs *r*. The bar B is provided with notches S on the side opposite the slots *l l'*, for receiving the free ends of the springs *o*, and also the outer ends of the detached springs *r*. C is a wire, secured by staples to the bar B, and

under which the ends of the springs *o r* are placed.

When the flat wires or springs are used the screw *k* is shifted into the hole *t*. The manner of using the flat wires or springs is as follows: The goods are placed on the board, and the first spring *o* is placed under the wire C and allowed to press upon the goods, which are then folded over the said spring by placing one of the detached springs *r* under the hook *p* and under the wire C. Another spring is then brought down upon the goods, and the operation repeated.

It is obvious that alternate wires or springs may be used, and that the manner of manipulating the goods may be varied according to the taste of the operator.

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

1. The board A, having grooves *a*, the part *d*, having the tongue *c*, slots *f*, the hinged wires *g g*, and the slotted and pivoted bar B, in combination, substantially as herein shown and described.

2. The board A, having grooves *a*, the part *d*, having the tongue *c*, slots *f*, and triangular recesses *i*, the hinged wires *g g*, the detached wires *j*, and the slotted and pivoted bar B, in combination, substantially as herein shown and described.

3. The combination of the hinged wires *g'*, detached wires *j*, part *d*, slotted bar B, and a plain board, A, substantially as herein shown and described.

4. The combination of the flat springs *o*, having hooks *p*, the part *d'*, having slots *n*, the bar B, having notches S, and the plain board A, substantially as herein shown and described.

5. The combination of the detached springs *r*, springs *o*, part *d*, notched bar B, and board A, substantially as herein shown and described.

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