

MARY F. SALLADE.

PLAITING-MACHINE.

No. 173,674.

Patented Feb. 15, 1876.

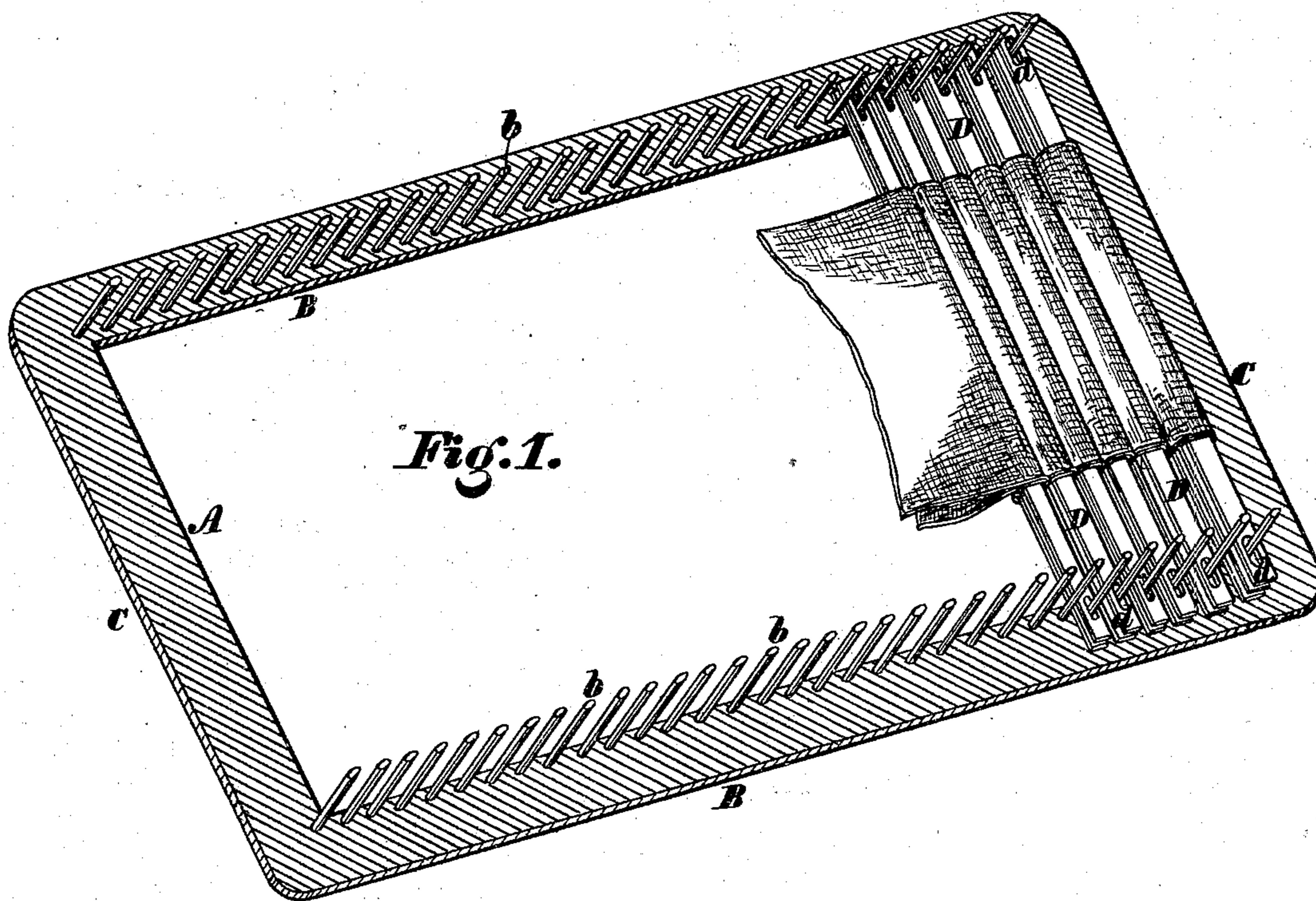


Fig. 2.

Witnesses

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MARY F. SALLADE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN PLAITING-MACHINES.

Specification forming part of Letters Patent No. **173,674**, dated February 15, 1876; application filed January 14, 1876.

To all whom it may concern :

Be it known that I, MARY F. SALLADE, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Plaiting-Frames; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a perspective of my invention, showing the manner of folding the velvet or other material for plaiting. Fig. 2 is a longitudinal vertical section of the same.

The object of my invention is to provide a device for plaiting textile materials, particularly adapted to those having a pile or nap, or other delicate finished surface, such as crape, velvet, &c.

My device consists of a rectangular oblong frame, preferably of metal, having studs or pins at regular intervals along its two longest sides. On these studs are to be placed tin slats having at each of their ends openings for the passage of said studs, these openings being, by preference, elongated in the direction of the length of the slats. These slats are designed to have the material to be plaited folded over them, as hereinafter fully described, which material is subsequently to be steamed or pressed, thus forming the plaits in such manner that they will be permanent, the operation not injuriously affecting the pile, nap, or other surface of the goods acted on to the slightest extent.

Referring to the accompanying drawing, A designates a metallic frame of rectangular oblong shape. B B are its two long sides, and C C its ends. Along the two sides B B are fixed studs or pins *b b*, at regular distances apart, in practice about a quarter of an inch. D D represent tin slats, designed to extend across the frame A, the studs *b b* entering elongated openings, *d*, in the ends of said slats. The width of these slats must be regulated by the distance between the pins *b b*, and must be less than such distance, so as to prevent said slats from overlapping. Were the slats to overlap or break joints, the mate-

rial to be plaited would be injuriously affected, particularly if such material should be the fine dress-goods, as velvet, crape, and the like, to which my invention is best adapted, and for which it is particularly designed. With such material, operated upon as I propose, the whole upper surface, or nap or pile, must remain free of contact with heated metal; otherwise such surface will be depressed according to the extent of contact, and will be correspondingly injured.

I shall now proceed to describe the method of pleating with my device. The material to be plaited, which is usually in long strips, is first folded, and a tin, D, passed between its folds, said tin being then laid on the frame A in such manner that the end pins *b b* will pass through the openings *d d*, the elongated form of such openings facilitating the slipping of the tin on the studs. Another tin is then placed on the same studs and the material folded over this once. Still another tin is then placed above the last-mentioned one and the material folded back over this. This starts the material on the frame. It is continued by folding the material in like manner over succeeding tins, as shown plainly in the drawing, only two tins being required for each stud, except the first, which requires three, the material to be plaited always passing beneath the lower tin and above the upper one. In this manner, when the frame is filled, the two surfaces of the fabric are exposed or uncovered, there being no part of the tins visible except the projecting ends. The frame being thus filled, the folded fabric requires to be steamed or pressed to insure permanency to the plaits. If such fabric be either velvet or crape, it should be folded over the slats with the pile or finished surface exposed to view from above the frame. After being thus folded over the tins, a dry cloth is laid on the plaited material, and a damp cloth placed over the dry one. The frame is now inverted, so as to rest on the pins *b b*, the damp cloth being below the dry one, and the latter just beneath the folded material. A hot iron of shape corresponding to that of the frame is then laid on the latter, generating steam from the damp cloth, such steam passing through the dry cloth and into the folded fabric.

The iron is allowed to remain on the frame for about ten minutes, or sufficiently long to completely dry the damp cloth, by which time the plaits will be thoroughly formed. With material not having a pile or nap, but having its two sides finished the same, or substantially the same, the operation is varied. The damp cloth is simply laid on the folded fabric and the iron passed down into the frame, pressing on such damp cloth until it is dry. The frame is then turned over and the operation just described repeated on the other side.

The advantage of the open frame over a board having pegs arranged like the studs *b b* is, that said open frame permits the folded fabric, when required, to be pressed on both sides, while with a board it could be pressed only on one. In the case of plaiting velvet or crape, such open frame also permits the operation of placing the dry cloth on the upper surface of the folded material, the damp cloth over this, so that when inverted the damp cloth will be below, the dry cloth over it, and the velvet or crape above, with its "wrong" side exposed to the influence of the heat radiated from the iron placed above it—an operation manifestly impossible with a board.

What I claim as my invention is—

1. A plaiting-frame having fixed pins and adjusting-slats, said frame being open to permit the fabric folded over the slats to be operated upon on both sides, the pins being at regular distances apart, and the width of the slats being less than the distance between said pins, substantially as shown and described.

2. In combination with the frame A, having pins *b b*, the slats or tins D, formed with elongated openings *d d*, to facilitate the application of said slats to the pins, as set forth.

3. The method herein described of plaiting fibrous material, by folding the same over slats in such manner as to leave the finished surface of the material uncovered, and then fixing such plaits permanently by steaming and pressing the same, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 31st day of December, 1875.

MARY F. SALLADE.

Witnesses:

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GEO. C. SHELMERDINE.