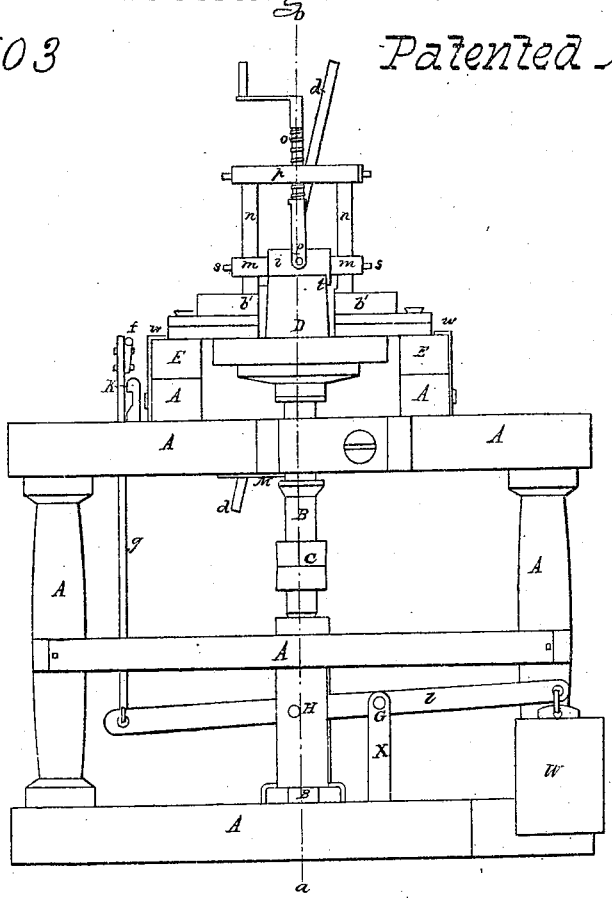
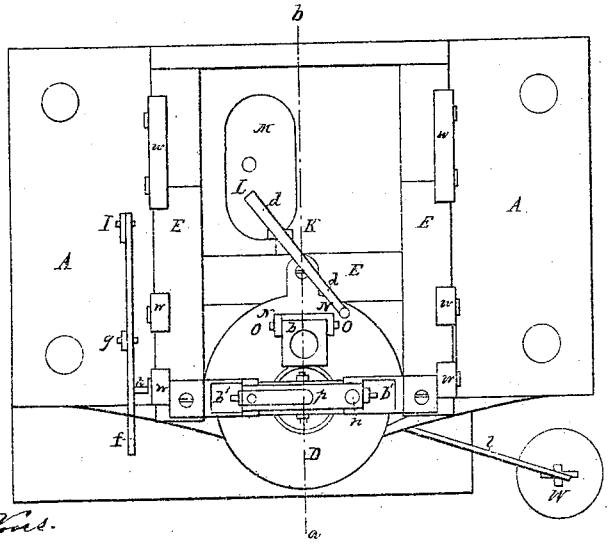
Sheet 1. 2 Sheets.

C. Gorham.

Ironing Hats.

No. 1503 Patented Mar. 3, 1840.





Witnesses.

Seth Lee.

Charlotte A. Mills.

Inventor.

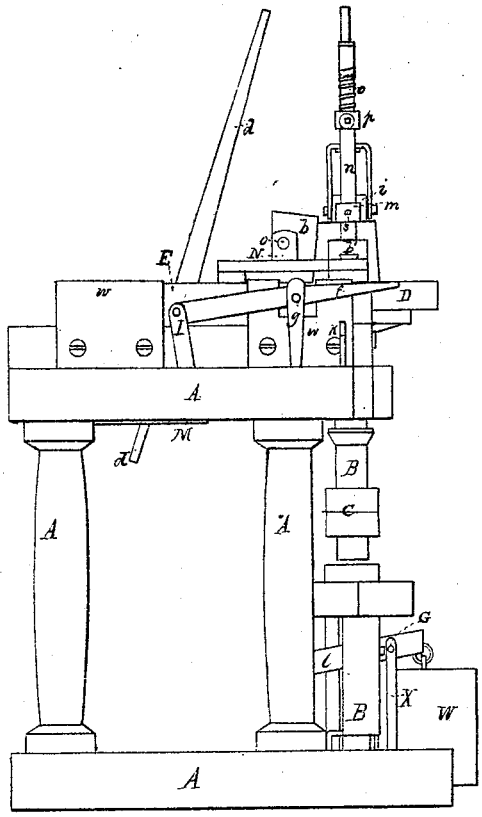
Chester Gorham

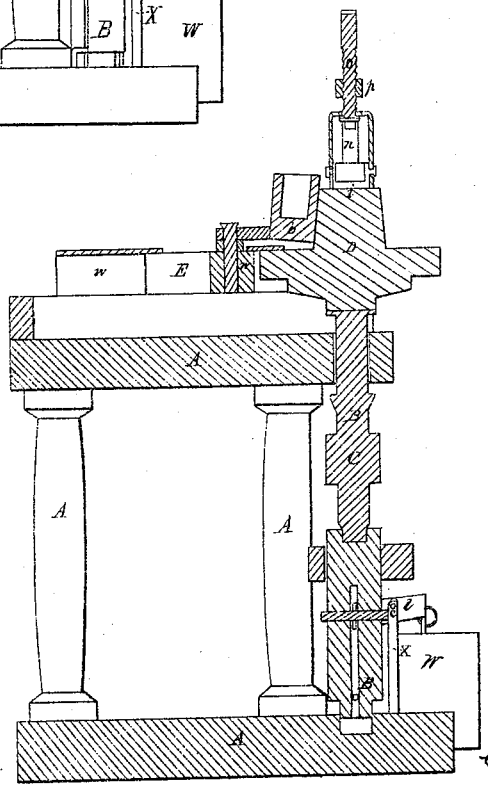
Sheet. 2. 2 Sheets

C. Gorham.

Ironing Hats.

No. 1503 Patented Mar. 3, 1840.





Witnesses.

S. Th. Lee.

Charlotte A. Mills

Inventor.

Chester Gorham

UNITED STATES PATENT OFFICE.

CHESTER GORHAM, OF BARRE, MASSACHUSETTS.

MACHINE FOR PRESSING PALM-LEAF HATS.

Specification of Letters Patent No. 1,503, dated March 3, 1840.

To all whom it may concern:

Be it known that I, CHESTER GORHAM, of Barre, county of Worcester, and State of Massachusetts, have invented a new and Improved Mode of Pressing Palm-Leaf Hats, which improvement I have herein fully set forth and described.

This description, in connection with the accompanying drawings herein referred to, forms my specification.

A, A, A represents the frame work which supports the different parts of the machine.

B is a shaft, attached to which is a block D, made in such shape as to fit the hat which is to be pressed. A fast and loose pulley C is also attached to this shaft, for the purpose of revolving the shaft B, when required. Attached to the shaft B at H, is a lever *l*, whose fulcrum is at G, in a standard X. At one end of this lever *l* is hung a weight W, which by its gravity acts upon the lever and serves to raise the shaft B, and bring the block D connected thereto into contact with the boxes *b'*, *b'*, *b* containing the heating irons. At the other end of the lever *l*, is a connecting rod *g*, leading to a lever *f*, whose fulcrum is at I. The purpose of this lever *f* is to counteract the action of the weight W, when required, thereby depressing the shaft B and block D. A catch *k* serves to hold the lever *f*, when the shaft and block are in a depressed position.

The boxes *b'*, *b'*, *b* above referred to are constructed of metal or any appropriate substance that will resist the action of the heat requisite to perform the operation of smoothing and pressing, and they are made in such manner as to hold movable irons, which are to be heated and deposited into the boxes, when the pressing of hats is to be performed. These boxes are attached to a frame E, which with the boxes *b'*, *b'*, *b*, may be made to slide to and from the block D as occasion requires. Those surfaces of the boxes *b'*, *b'*, *b* which come in contact with the hat are made smooth, so that the boxes, when heated by the application of heated irons deposited therein, answer the purpose of smoothing irons. The boxes *b'* and *b'* are so arranged upon the sliding frame, that their lower surfaces shall come in contact with the rim of the hat, and the side of the box *b* comes in contact with the crown. This last mentioned box *b* is not immovable, but is attached to standards N N (made stationary in the sliding frame E) by a pin O, on which pin, as a hinge, the box *b* may perform a partial revolution. The pin O is passed through the box, behind the center of the same, in order that the weight of the box may cause a pressure against the crown, when the sliding frame E is brought sufficiently forward. By arranging the box *b* upon a hinge as at O, it assumes a position corresponding to the different angles which, in differently shaped blocks, the crown makes with the rim.

The motion of the sliding frame E to and from the block D may be performed, as represented in the drawings, in bent pieces of metal *w*, *w*, or the groove in which it slides may be made in any convenient manner. A lever *d*, attached to the sliding frame at K, and whose fulcrum is the circumference of a hole L in a plate M, serves to perform the abovementioned motion of the sliding frame E. Besides the boxes *b'* *b'* *b*, there is also attached to the sliding frame E, an apparatus for pressing the crown of the hat. This apparatus is constructed as follows. A box *i*, so constructed that a heating iron may be deposited therein, and removed at pleasure, is provided with pieces *m*, *m* projecting from the sides thereof, and through slots in these pieces *m*, *m*, are passed the posts *n*, *n*, which are attached to and make a part of the sliding frame E, and they are placed in such a relative position upon the frame, that when the side of the box *b* is in contact with the crown, the box *i* shall be over the top of the block D. A cross bar *p* unites the posts *n*, *n*, and in this cross bar is formed a female screw, in which the screws *o* acts. This screw is connected at P to the box *i*, and serves to move the box up or down to accommodate the different heights of hats. The box *i* is provided with a lip *t*, projecting from its lower side. The lower surface of the box *i*, and the inner surface of the lip *t* are made smooth, as these surfaces come in contact with the hat during the operation of pressing. *s*, *s* are adjusting screws, which act in females in the parts *m*, *m*, and work against the posts *n*, *n*. By unscrewing one and screwing the other of these screws, the position of the box *i* may be so arranged, that the circumference of the top of the hat shall coincide with the junction of the inferior surface of the box *i* with that of the surface of the lip *t*, next to the

hat, when the top of the hat is in contact with the box *i*.

The mode of operating the machine is as follows: While the block D is depressed by means of the lever *f*, the hat is placed upon the block, the sliding frame E being in a position removed therefrom. After the hat is placed, the sliding frame is brought forward by means of the lever *d*, to such a position, that the box *i* is over the block D. The lever *f* is then disengaged from the catch *k*, whereby permitting the weight W to act at the other end of the lever *l*, and raising the block into contact with the lower surfaces of the boxes *b'*, *b'*, containing the heated irons. The box *i* is then brought into contact with the top of the hat by means of the screw *o*, and the lip *t* is pressed against the crown by means of the adjusting screws *s*, *s*. The boxes *b'*, *b'*, *b* and *i*, being provided with heated irons, and being all in contact with the hat, the shaft B is then put in motion by means of the pulley C, connected thereto, or in any other convenient manner, causing the block D with the hat thereon to revolve for a sufficient time, and the operation is then performed.

What I claim as my invention and desire to secure by Letters Patent is—

The combination of the boxes *b'*, *b'*, *b*, attached to the sliding frame E, the box *i*, regulated by the screw *o*, and the shaft B, the whole being constructed and operating as herein described.

In testimony that the above is a true description of my invention and improvement, I have hereunto set my hand this thirteenth day of February in the year of our Lord one thousand eight hundred and forty.

CHESTER GORHAM.

Witnesses:
SETH LEE,
CHARLOTTE A. WOOD.