C. Merritt.

Ironing Hats.

No. 3477

Patented Mar. 13. 1844.

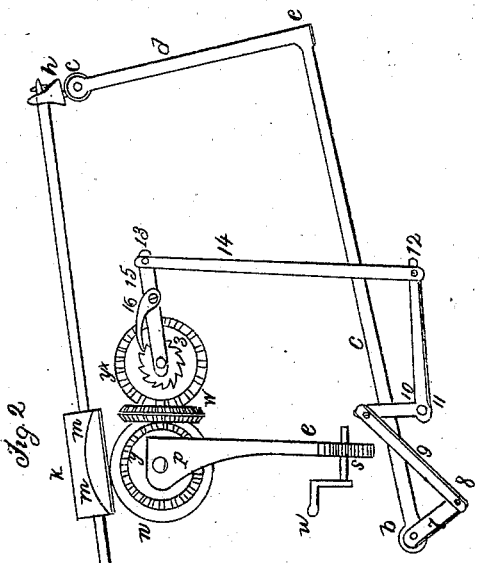

Fig 2

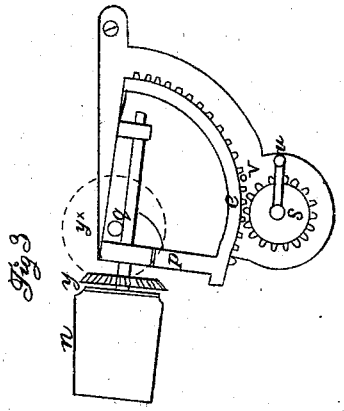

Fig 3

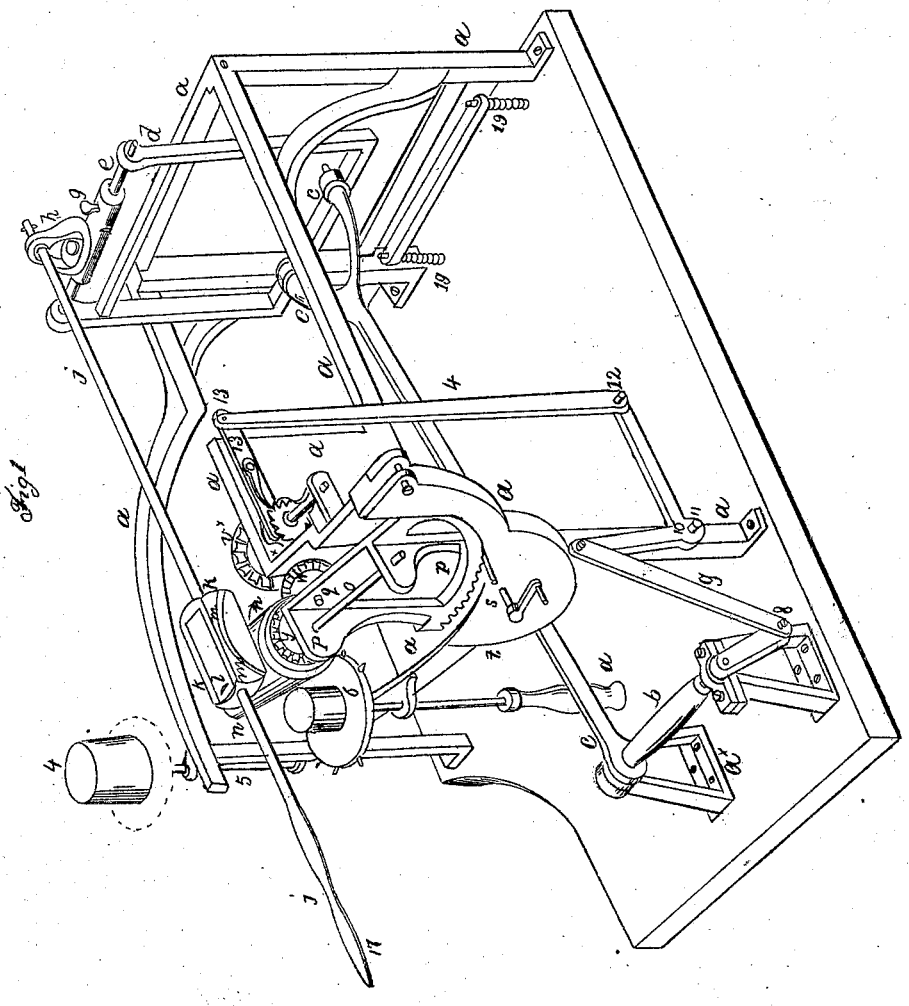

Fig 1

UNITED STATES PATENT OFFICE.

CALEB MERRITT, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN MACHINES FOR PRESSING BONNETS AND HATS.

Specification forming part of Letters Patent No. **3,477**, dated March 13, 1844.

To all whom it may concern:

Be it known that I, CALEB MERRITT, of the city of Baltimore and State of Maryland, have invented a new and useful Improvement on the Bonnet and Hat Pressing Machine; and I do hereby declare that the following is a full and exact description.

In the drawings, *a a*, &c., Figure 1, represents the frame or stationary part of the machine.

b is a shaft on benches or supports *a x a x*.

c is a rod fast to shaft *b*, and is branched near and fixed to the frame *d d*, &c.

e e is a shaft that works in the frame *d d*, &c.

f is a barrel passing over shaft *e e*, and by means of a thumb-screw may be shifted on any part of *e e*, and secured so as to move with *e e*.

h is a link, which, by the bolt *i* passing freely through *h h* from *f*, forms a swivel, and with the shaft *e* constitutes a universal joint. The rod *j j* passes through *h h*, and will turn in it.

k k is a metal box or pressing-iron, which, by means of the slide-door, is to hold a heated piece of metal. This pressing-iron has two plain faces, and one with a depressed part, *m m*, for ironing hat-rims, so as not to injure or disturb the edge or binding.

n n is a bonnet or hat block, projected on the shaft *o*, which shaft is supported by and revolves in the piece *p p*. This piece hangs or plays on a short shaft, one end of which is seen at *q*. The piece *p p* has a quadrant of cogs, *r*, which works in a pinion, S. The blocks may be placed in either a horizontal, inclined, or perpendicular position, as required.

V is a pin to lock the piece *p p*, to keep the block in position.

W is a two-mitered wheel on the shaft *q*, one side of which works in the miter-wheel *y* and turns the block. The other side receives its motion from the miter-wheel which is on the shaft 2, with the ratchet 3.

4 is a block in a position for ironing the crown placed on the spindle 5 at the side of the frame.

6 is a block having a brim-piece or disk, with pins or handles to turn it.

7 is a crank or arm on shaft *b*, and by a working-joint, 8, is connected with a rod, 9, and by means of the branched lever 10, working on a fixed point, 11, in the frame, the joints 12 and 13, connected to the pieces 14 and 15, are put in motion. Through piece 15 passes freely the shaft 2 of the ratchet.

The manner of working the pressing-iron is as follows: The operator takes hold of the handle at 17, and by a gentle pressure raises the pieces *e e*, *d d d*, and *c c*, while the block remains stationary. When the handle is pressed down as far as necessary, raise your hand and the block will revolve back as far as the hat or bonnet has been pressed. The pieces 14 and 15 sink and withdraw the pawl 16 from the ratchet. Repeat this operation until the bonnet or hat is entirely pressed round. It may be seen that the block turns in the direction of the arrows by the operation of the pawl. Thus, by the peculiar structure and gearing of the miter-wheels and their appendages, the block will stand at any inclination and still remain in gear. The blocks 4 and 6, it will be seen, must be turned by the one hand while the operator works the handle *j j* with the other. The pressing-iron is now represented as on the block, while the parts *c c*, *d d*, &c., are at full elevation and ready to descend.

18 is a piece resting on spiral springs 19 19, to check the fall of the parts *c c*, *d d*, &c., when the hand is withdrawn from the rod *j j*.

Fig. 2 shows a side view of the moving parts of the machine, except 4 and 6. Fig. 3 shows a side view of the parts which give the requisite position to the block.

Like letters refer to the same parts in both figures.

The rod *j j* being four feet eight and a half inches long from one extremity to the other—viz., the handle twelve inches, heating-box nine and a half inches, the middle part twenty inches, and the residue of wood fifteen inches long—with the universal joint *e e f g h i* and the shifting barrel *f*, the pressing-iron will conveniently reach either of the blocks, and by this peculiar construction, with round, oval, or other suitable blocks, and a little practice, any convenient position of the block and pressing-iron may be had and the desired effect produced.

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

The combination of the shaft *j j*, which carries

the pressing-iron, with the gate *d d* by means of the slide and universal joint, as described, and these thus combined, in combination with the rock-shaft *b*, which communicates motion to the shaft *o* of the hat-block by the action given to the shaft *j j*, the segment-piece *p p*, which carries the shaft *o* of the hat-block, and which is shifted by the pinion S, in combination with the miter-wheels *y y*, *x*, and *w*, for the purpose and in the manner described.

CALEB MERRITT.

Witnesses:
ROBT. KERR,
WILLM. FENLY.