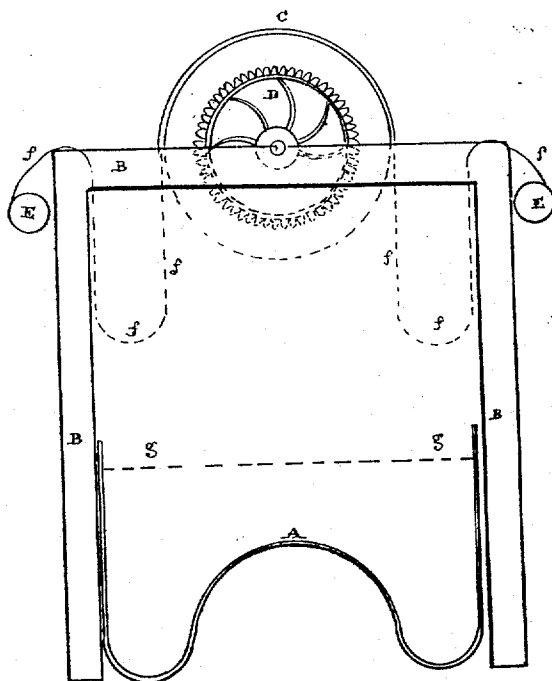


9592X

L. Lyon, 2^d
Felting Machine.

No.

Patented April 13, 1836.



April 13, 1836
Ch. S. 1836

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Samuel Lyon & Co. Merchants of
Latter Patent.

The schedule referred to in these Letters Patent and making part of the same, containing a description in the words of the said Samuel Lyon & Co. of his improvement in the mode of blanking & napping Hats."

It all is where these presents shall come

Be it known, that Samuel Lyon & Co. of the County of Suffolk & Commonwealth of Massachusetts have invented a new and useful improvement in the mode of blanking and napping hats, & that the following is a full & exact description of said improvement and of the operation of the machinery therefor, as invented by me.

The letter A in the drawing here annexed represents an end view of a kettle composed of copper or other suitable metal, set in bricks on a fire in the customary manner, said kettle should be about two feet in width, one foot in height, and of any convenient length from five to ten feet or more. A wooden frame or box is placed upon the kettle of the same width & length, so that it is only an increase of the height of the kettle, making it in the whole, about three feet high. A cylinder of about fifteen inches in diameter is placed longitudinally over the top of the kettle, the top of which rest upon the ends of said frame or box, as the drawing, this frame or box is represented by A, B, C, and the cylinder by E. Between the cylinder and the sides of the frame or box there is a space of about three or five inches, and the cylinder is upon of any material is laid; and the middle of the cloth being raised or fastened to the opposite of the cylinder, at C, the two ends of the cloth represented by F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, are then carried up over the sides and are either or wound round the rollers D, when it is desired that the cloth shall descend far down into the kettle, the ends may be wound round

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from the rollers. When it is desired to let it fall a lip distance into the kettle, the ends of the apron may again be rolled up round &c. This apron is then covered at the bottom with hot tresses, if for planking two or three layers deep; if for rapping then only two layers deep. The cylinder is put in motion by a crank motion or in any other way. C. represents a cog wheel or pinion by which the cylinder is turned. The point of the circumference at C descends until it has performed nearly half a revolution; it is then arrested, carried back and over on the other side until it makes nearly half a revolution on that side, and is then arrested and carried back and down again as before. As the cylinder moves the lower point in the apron necessarily descends on one side and rises on the other. Whether the apron is rising or descending, the hot tresses, which lie in its bed or trough, receive a rotary motion. As the apron rises, they roll in one direction; as it descends they roll in the contrary direction.

In planking the bodies, the apron should move up in the same, & for that purpose the rolls may be taken up round the rollers &c. In rapping them the apron should descend into the water. The kettle should be prepared for rapping as that, they were to be rapped in the ordinary way. g. represents the water line, that the kettle may contain more or less water according to circumstances. A cover should be put over the whole machine to prevent the steam &c. from escaping. It is obvious that a kettle of different dimensions may be constructed.

If the diameter of the cylinder is greater, the box or kettle should be wider. The same rotary and alternating motion in rolling & rapping shifting from forwards to backwards may be given to hot bodies, by placing them in the inside of a cylinder and then giving the cylinder the alternating or shifting motion above described. It is obvious also the cylinder should allow of the admission of steam or water. I consider the apron preferable. What I claim

as my invention or improvement in planking and ungluing
 hat boxes & for which I herewith claim Little Patent is the
 giving a rotary & alternating motion, i.e. rotary & then
 shifting from forwards to backwards to hat bodies placed
 in the bed or trough of a machine or inside of a cylinder, as
 above described.

Witness

at New York

at New York

Samuel Lyon 9th

Ex
 Chiff

8/16 1874

Attest