Hat-li'ning Sew'ing-ma-chine'. chine for sewing the sweat-leathers into hats; in-

vented by Eickemeyer. It differs from the ordinary sewing-machine in the arrangement of the work plate, which is curved to receive and support the side crown on one of its faces while the brim is supported upon a narrow strip. In the presser-foot is a gage which guides the edge of the sweat-leather to the needle. The machine itself is pivoted to the table and can be turned around its driving shaft to enable it to be adjusted at the will of the operator in such a manner that the hat is held up without any further assistance after it has been put under the presser-foot.

The feed is an ordinary four motion which acts in the corner formed by the junction of the brim and side crown,





Hat-sweat Sewing-machine.

while the presser-foot is of a right angular shape and presses upon the exterior of this angle. The hat is thus carried around, guided by the angle, which insures a perfectly even stitching of the sweat near the edge. In most cases the leather is stitched fast to the hat, leaving the stitches visible, while in other cases the edge is stitched fast and the sweat turned over to hide the stitches. By a change of the presser-foot either style can be sewed on the machine.

To make a perfectly smooth edge on the sweat-leather where it touches the forehead, it is desirable to turn the edge of the sweat in a sweat-rolling machine, which is composed of two rollers geared together and supported in a

frame, the upper one held down by a rubber spring to allow it to yield to the varying thicknesses of the leather. After the introduction of the hat-sweat sewing-machine, another improvement in the same direction, namely, a machine to make the hat linings, was invented by Eickemeyer, and improved by Judson. It consists of a table having a round or oval motion, upon which a piece of sik or other material to make the tip is secured, while another piece is put in a folding gage in such a way that the stitching will fasten the edge of the piece that forms the side crown in a circular or oval line to the flat tip.

Judson added to this attachment a pair of rotary shears, and arranged the turn table upon a swinging lever, which enabled him to trim the tips before the side crown was sewed fast.

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The use of the pouncing machine has, however, done away with the necessity of lining the hat crown inside, both the outside and the inside being now pounced and presenting a smooth, finished surface.